skin diver

RITY IN ITS FIELD

JANUARY 1987
$2.50
UK£2.00

CATCH THE COLOR WAVE

Let Your Personality Show Through

FLORIDA DIVE ROUNDUP

U/W VIDEO– FAD OR FUTURE?

SPRING SELECTS FOR EXOTIC DIVE VACATIONS

USVI DIVE GUIDE

WINTER HOT SPOTS

Cayman Brac
Bonaire
Roatan



0 71486 02397

THE OMEGA II, SUPER TUNED TO YOU AND IT SHOWS.

Even if you've been diving for years, you'll enjoy a new sense of satisfaction from the new OMEGA II's high performance and light weight. If you're new to the sport, you'll be happy to discover that the OMEGA II is the one super-tuned regulator you already know how to use. It breathes the way you do.

You can actually see it at work. Inside OMEGA's color coordinated transparent housing is a melding of two moving parts . . . a down stream servo assisted demand valve and a bi-radial diaphragm that allows the OMEGA II to breathe with you at all demand levels.

For even more performance, there's the OMEGA II first stage that gives you a fifth port for greater air flow.

At only 6 ozs. that's saying quite a mouthful about a regulator that is anything but. And with Oceanic's patented mouthpiece that ends jaw fatigue, OMEGA II is tuned into your comfort as well.

Tune into the new OMEGA II at your favorite dive shop. It's now showing.

Oceanic wrote the book on what's new in diving. For a copy of our beautiful 38 page catalog, send $4.00 to Oceanic USA, 14275 Catalina St., San Leandro, CA 94577.



Oceanic
USA

DIVING ESSENTIALS REDEFINED

415 - 352-5001

Even 600 feet down, a second is still a second. Exactly.

TECHNIQUES D'AVANT-GARDE

TAG HEUER

In critical situations, accuracy matters above all else. Luckily you can rely on TAG-Heuer. Because TAG-Heuer stands for exceptional Swiss quality, state-of-the-art technology and functional design.

TAG-Heuer: the professional sports watch for a world in which a split second counts.



Ref. 980.018 Ref. 980.020

Professional type. Two-tone. Water-resistant to 200 meters (660 feet). Screw-in crown. Uni-directional turning bezel with ratchet.

TAG-Heuer. Time for action.

Heuer Time & Electronics Corp. 960 S. Springfield Ave., Springfield, NJ 07081 (201) 467-1890.
West Coast: 1900 Ave. of the Stars, Century City, CA 90067 (213) 556-8208.

LET'S FACE IT!



SeaStyle masks were designed with 3 objectives in mind

- To Look Good
- To Fit Perfectly
- To Improve Visability

The unique hydrodynamic shaping plus 8 vibrant colors look great on you!

Surgical silicone skirts lightly tinted to match the frames fit your face perfectly!

SeaStyle Masks are the only masks in the world with the lens canted 11° degrees to greatly improve your downward visability.



27503
Cabrilla

Photography by
Mark M. Lawrence

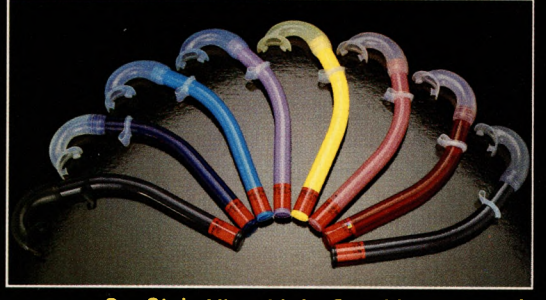


27
Advanta

FACE THE SEASTYLE MASKS

at your local dive store and find out how good a dive mask can be. 3 models to choose from. Cabrilla - Mini Cabrilla - Advanta.

See the complete line of Wenoka SeaStyle Dive products at your local pro-dive store. While there, ask for your FREE full-color Diving Products Guide or send $4.00 to Wenoka.



SeaStyle Ultra Light Snorkles to match

wenoka® DIVISION OF SCHUR, INC.
SEA STYLE™

1134 53rd COURT NORTH/P.O. BOX 8238
WEST PALM BEACH, FLORIDA 33407
TELEPHONE: (305) 845-6155

COPYRIGHT® 1986
SCHUR INC.
ALL RIGHTS RESERVED

RESEARCH / DESIGN / ENGINEERING / QUALITY

SDM

Volume Thirty-six *Number One*

DIVE EQUIPMENT

19 **WENOKA'S COLOR WAVE** /BONNIE J. CARDONE
118 **MARES CHROMA MASK/FLEX SNORKEL** /BONNIE J. CARDONE
148 **VANGUARD REGULATOR** /ERIC HANAUER
158 **OCEANIC GEAR BAGS** /JIM WALKER

PHOTOGRAPHY

24 **SDM'S NIKONOS PHOTO COURSE** /GERI MURPHY
132 **SDM'S U/W VIDEO COURSE** /JIM AND CATHY CHURCH
136 **SUBATEC S100 STROBE** /GERI MURPHY

FOREIGN TRAVEL

29 **DIVING NEWS FROM DOWN UNDER** /GERI MURPHY
59 **UNITED STATES VIRGIN ISLANDS** /MARK M. LAWRENCE
77 **TRUK LAGOON CRUISES** /GERI MURPHY
79 **CAP'N DON'S HAMLET** /STEVE LUCAS
88 **TIARA BEACH HOTEL** /GERI MURPHY
94 **ANTHONY'S KEY RESORT** /RICK FREHSEE
96 **SPRING DIVE DESTINATIONS** /CARL ROESSLER

DIVE BOATS

30 **DELTA 28 WORKBOAT/YACHT** /STEVE LUCAS

THE GOURMET DIVER

34 **PAN-FRIED YELLOWTAIL SNAPPER** /GREG JOHNSTON

LOCAL DIVING

37 **FLORIDA DIVE GUIDE** /STEVE LUCAS
142 **CANADIAN ICE FLOE RACE** /HARRY A. STEARNES

WRECK DIVING

110 **MILWAUKEE CAR FERRY** /RICHARD TRIEBE
122 **EXPLORING THE ALERT** /HOWARD B. TOWER, JR.
152 **SS JOHN MORGAN** /WILLIAM H. HUGHES

TREASURE EQUIPMENT

116 **FISHER M-SCOPE AQUANAUT METAL DETECTOR** /JIM WALKER

MISCELLANEOUS

126 **NAVY EOD TEAMS** /DAVID KASHIMBA
156 **THE UNSEEN MENACE** /DICK ANDERSON

COLUMNS

22 **DIVING MEDICINE**
32 **WRECK FACTS**
138 **TECHNIFACTS**
166 **I LEARNED ABOUT DIVING**

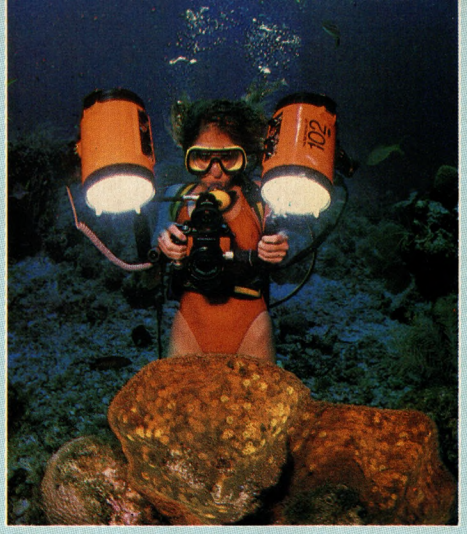
DEPARTMENTS

12 **CALENDAR**
15 **SCUBA QUIZ**
130 **BOOKSHELF**
150 **ADVERTISER INDEX**
160 **DIVER'S DIRECTORY**

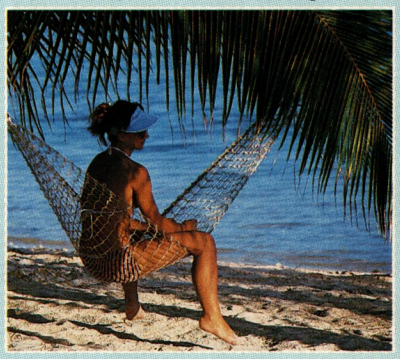
COVER

Model Heather Fischer's sparkling outfit exemplifies the new color wave in diving gear. Now divers can let their individuality show. The photo was taken by David B. Brooks, Senior Editor for Petersen's PhotoGraphic.

© Copyright 1987 by PETERSEN PUBLISHING COMPANY. All rights reserved.



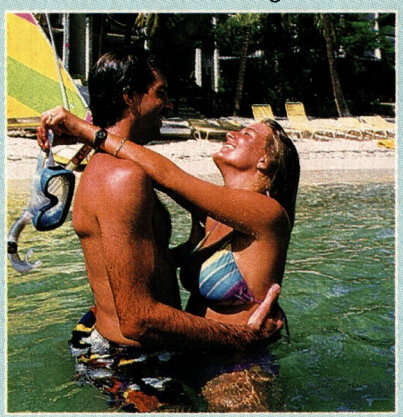
Illuminating look at AKR/Page 94



No rush at Tiara Beach/Page 88



Clear around Florida/Page 37



Embracing U.S. Virgins/Page 59



A descendant

It all began with Grand Prix racing. The Honda objective? A Formula 1 engine that was powerful, efficient and wouldn't break.

More simply put, an engine that would win.

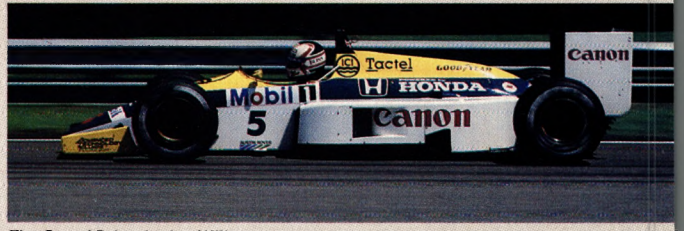
Well, that engine was built.

And needless to say, we've learned a great deal. More importantly, we've applied much of what we've learned to the Acura Integra.

From the very moment you get behind the wheel, you realize that this is not merely another pretender to the sports sedan throne. The analog gauges are clearly visible. The controls are carefully integrated into the driver's environment. The all-round visibility minimizes the distractions while maximizing driver confidence.

And when it comes to the sports bucket seat, well let's just say the contours allow you to sit in it. Not on it.

But it's once you're belted in that the Integra



The Grand Prix winning Williams Honda Formula 1 car, the Acura Integra's forefather.

©1986 American Honda Motor Co., Inc. Acura and Integra are trademarks of Honda Motor Co., Ltd.



of many races.

begins to show its true Grand Prix colors. You'll find your right foot in command of the race-bred performance that comes from a fuel-injected DOHC 16-valve engine that's substantially lighter than its more conventional counterparts.

In other words, an engine that makes the Integra substantially quicker.

As you run through the gears you impatiently wait for a curve to appear. When it does, refined front wheel drive and a sports-tuned handling package give you precise control and remarkable stability.

But what really sets Integra apart is space. Interior leg and headroom to be precise. Here's a sports sedan that seats five comfortably, yet handles like nothing you've ever driven before.

The Acura Integra. 3 or 5 door sports sedans. Exclusively at Acura dealers. The Acura Integra. Performance born in the back of a Formula car.

Test drive the Acura Integra exclusively at your Acura dealer. Call 1-800-TO-ACURA for the location of the dealer nearest you.

ACURA

PRECISION CRAFTED AUTOMOBILES

A division of American Honda Motor Co., Inc.

DACOR

divecolors

T.M.

Dacor's own exclusive color matching system is now available on all of our SCUBA components. You'll have the finest equipment along with the style, comfort and fit to make your diving experiences more enjoyable.

LOOK GREAT.

FEEL GREAT.



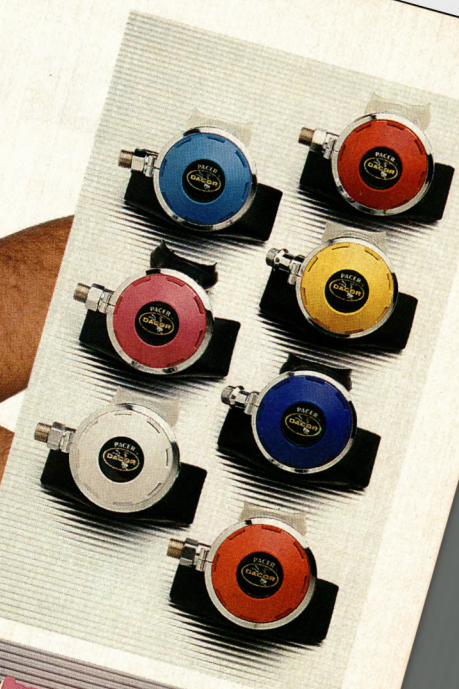


DACOR CORPORATION
161 Northfield Road, Northfield, IL 60093
Phone (312) 446-9555

DIVE WITH STYLE & QUALITY.









Coordinate your dive gear to reflect your own taste. Have more fun and dive with the confidence that only Dacor builds into their diving gear. There's a variety of colors in compatible, matching combinations that look great in or out of the water.



Send Dacor $3.00 for a Dacor Diver Kit. Includes catalog, cloth patch, decomp table, decals.

SDM Editorial

BY PAUL J. TZIMOULIS

QUEST FOR LIFE

Why do divers travel long distances from their homes? I suppose there are many theories and advantages.

Perhaps it is the thought of a sun drenched tropical island that comes to mind while a landlocked diver is slogging through knee deep snow on a winter morning. Maybe it is the sensual pleasure of swimming weightless and unencumbered in 82°F warm water. It might be the exhilaration of being able to see more than 100 feet in any direction while floating in crystal clear water.

Yet the biggest attraction for dive travel is that special opportunity for a marine life encounter. Local marine life may be either shrinking in numbers or non-existent: You'll find no manta rays in an Ohio quarry. Lobsters and fish life along our seacoasts are diminishing owing to pollution, overfishing (both commercial and sport) and soil erosion.

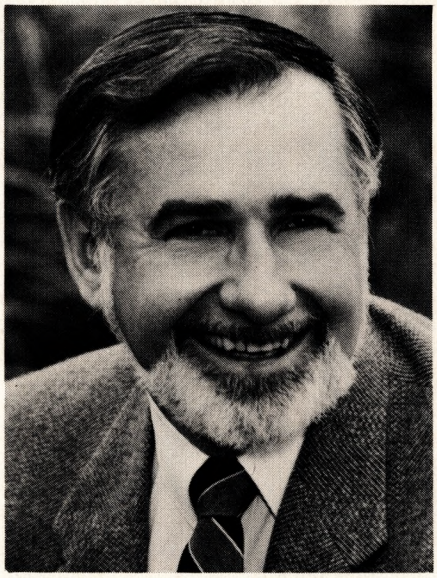
Compare this situation to the undersea wonders of tropical diving. For instance: Divemasters in the Florida Keys conduct daily handfeeding demonstrations with tame green morays and a pet barracuda.

On Grand Cayman's North Wall, divers swim among 100 large silvery tarpon in a coral canyon called Tarpon Alley. Not far from this site divemasters handfeed giant southern stingrays that have become pets.

On Australia's Great Barrier Reef, divers have an opportunity to handfeed 15 giant groupers (called potato cod), each weighing more than 100 pounds.

In Bonaire, one divemaster handfeeds up to five moray eels at the same time. In Mexico's Sea of Cortez, visiting divers often swim with manta rays, whale sharks and schooling hammerheads.

Each of these marine life encounters is a thrill beyond description and seems to



trigger some primeval curiosity buried deep within all of us. It is this quest for life that has caused the present leisure time migration of divers to the warm water re-

Mares. The name you'll find on the lips of more top divers.





Twenty years ago, the original MR 12 regulator series established an unheard-of record of reliability.

And earned the confidence of serious divers everywhere.

Today the new generation Mares MR 12-III rules the seas.

With an ingenious, second-stage bypass tube that creates a swirling, low pressure vortex. Allowing you to breathe naturally and effortlessly. Even under the toughest diving conditions.

And the MR 12-III is backed by a *full lifetime warranty.*

So if you want a regulator you can trust, go by word of mouth.

Take Mares. The number one choice of number one divers.

SeaQuest, Inc. 2151-F Las Palmas Drive, Carlsbad, CA 92008 (619) 438-1101.

AMF Mares

gions of the world. More than 700,000 divers are traveling to Florida, the Caribbean, the Pacific and other oceans of the world in search of undersea adventures.

As a result, dive travel and tourism have become big business. How big? During a recent address to dive store owners attending Scuba Bowl, the Cayman Islands Minister of Tourism reported 53,200 divers had visited the Caymans in 1985. Since it is estimated the average diver spends $1,000 (for air fare, room, food, drinks, diving, shopping), this amounts to a $53.2 million contribution to the island's economy.

The Caymans are not the only destination enjoying this boom. Dive resorts are springing up on just about every tropical island in the Caribbean and Pacific. The number of live-aboard dive boats is increasing 35 percent per year.

An interesting offshoot to this U/W tourism wave is the creation of marine parks. Dive resort operators quickly realized the importance of their island's coral reefs and marine life. These are the main reasons for their booming economy.

Dive operators and hotel owners have, in turn, convinced government officials to establish U/W parks and to protect their precious natural resources. During the past 10 years there has been a race for islands to establish marine parks.

This trend has become extremely beneficial to both nature and man. Large undersea reef areas have been declared parks. On some islands, these parks have been further subdivided into specific zones for recreational use, replenishment or as wildlife sanctuaries.



photo/Paul J. Tzimoulis

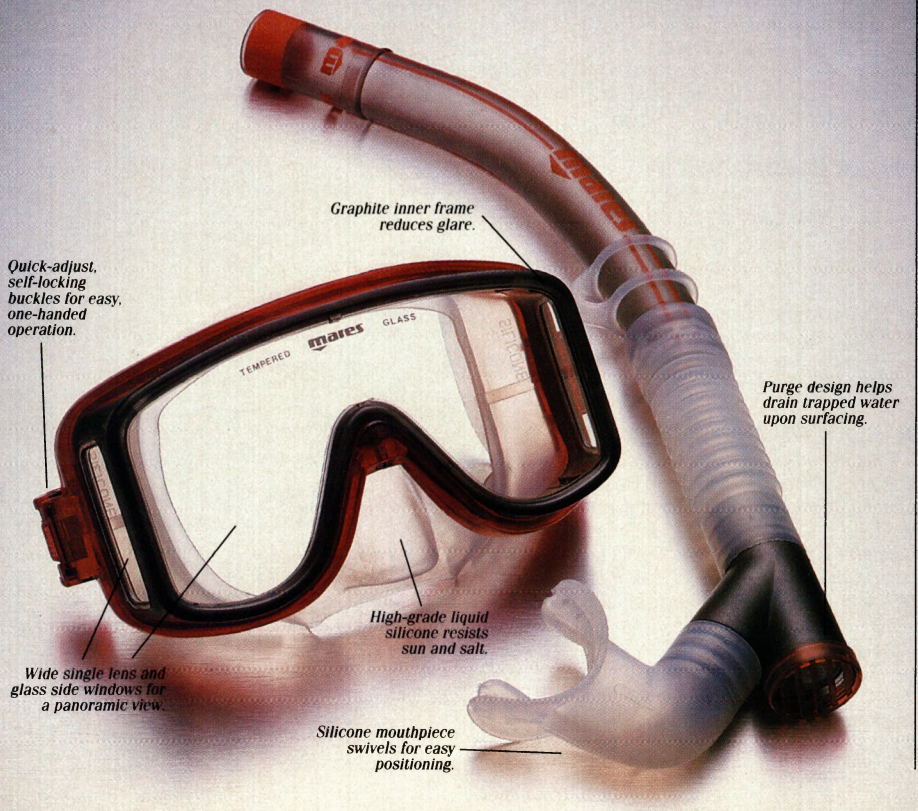
Spearfishing or the taking of corals is prohibited. There is also a ban on such commercial activities as gill netting, tropical fish collecting, fish poisoning or fish dynamiting. As a result, marine life increases significantly, often within a year or so. The change is remarkable.

A recent SKIN DIVER study has revealed an interesting correlation between marine parks and dive tourism. Today's most popular and prosperous dive travel destinations have established marine parks. The Bahamas, Bonaire, BVI, Caymans, Cozumel, Hawaii, Australia, Truk Lagoon and others have marine parks that protect the reefs, fish life and historic shipwrecks.

On the other hand, islands such as Haiti and Jamaica continue to suffer from overfishing and have never attained significant success as dive resort destinations. The message is clear. Divers want to go where the fish and reef life are abundant and beautiful.

It is ironic that sport divers have been able to accomplish something marine scientists and environmentalists have been unable to do for half a century. The prospect of a burgeoning industry for underwater tourism has posed a persuasive argument for environmental protection. Those fish are worth a lot more money alive than dead. Let's keep it that way.

Mares.
Changing the face of diving.





The way we see it, a smart-looking mask isn't worth much if it's not smartly crafted.

So while Mares masks look great on the outside, they're even more beautiful when you look under the surface.

Mares masks are made with only the finest liquid silicone, in clear or graphite. So they're remarkably comfortable. And extremely resilient to the elements. With an innovative buckle design that makes adjustments a snap.

The same leading technology also makes Mares snorkels perform better. In a dazzling array of coordinated colors.

So if you want the top equipment under water, look into Mares. And see how far we can take your diving.

SeaQuest, Inc. 2151-F Las Palmas Drive, Carlsbad, CA 92008 (619) 438-1101.

AMF Mares

Diver's Calendar

FROZEN FIN DIVE

SECONN Dive Club will hold its 23rd annual Frozen Fin Dive at Greenhaven Beach, Pequot Avenue, New London, Connecticut **January 1**. Local dive shops and manufacturers have donated equipment for prizes. Registration is at 10:00 am and the dive begins at noon. Divers must bring proof of certification. For information contact Jim (203) 848-9840, Gene (203) 886-5234 or Brian (203) 848-3385.

UNDERWATER ARCHAEOLOGY CONFERENCE

The Society for Historical Archaeology will host a conference combined with the 18th annual Conference on Underwater Archaeology **January 7-10** at the Hayatt Regency Savannah. The film festival on Saturday night will feature films from around the world including one on the *Mary Rose* and the latest on the *Titanic*.

For information call (912) 927-5380 Eastern Time business hours or write Kathy Levitt, Department of History, Armstrong State College, 11935 Abercorn St., Savannah, Georgia 31419-1997.

MIAMI SHELL SHOW

The Greater Miami Shell Club, Inc. is hosting its 25th annual shell show, the Silver Anniversary Shellabration, at the North Miami Armory, 13250 NE 8th Avenue, **January 30-February 1** (during the day only). Shell dealers will be present and a raffle will be held at the end of the show.

For more information contact Gayle Motes, 7305 NW 59th St., Tamarac, Florida 33319; (305) 621-1441, ext. 225 (days).

CALIFORNIA WRECK DIVERS BANQUET

The California Wreck Divers will host their Annual Banquet **January 31**. This year's keynote speaker will be Bleth McHaley, vice president of Treasure Salvors. Riches of the *Atocha* and Mel Fisher's 16 year quest to find her will be highlights. For information contact David Lee (818) 576-8293, Pat McFerran (213) 390-5171 or write to CWD, P.O. Box 10571, Marina del Rey, CA 90291.

VISIONS OF THE SEAS '87

This year's Visions of the Seas film festival will be held at the Hyatt Oak Brook in Oak Brook, Illinois Saturday **January 31** and will feature Jack McKenney and Stan Waterman. Exhibits will be open from 1:00-11:00 pm and the film show will be held from 7:30-10:00 pm. Seven dive shops are sponsoring the event. Call any of them for information (all area code 312): Black Magic Dive Shop 546-4664, Chicago Scuba Shop 348-3483, Midwest Diving Academy 885-0770, Scuba Emporium 389-9410, Scuba Systems 674-0222, The Gear Bag 637-3467 or Underseas Scuba Center 833-8383.

DMT COURSE

A Diver Medical Technician course will begin **February 3** in Seattle, Washington. Offered by LifeTek, Inc. in conjunction with Virginia Mason Hospital Hyperbaric Division, the 160 hour course is for the professional diver and is approved by the National Association of Diver Medical Technicians.

For more information, including entrance requirements, call Ron Rutherford at (206) 823-8229 or Richard Dunford (206) 583-6543 or write LifeTek, Inc., 12020 Juanita Drive NE, Kirkland, WA 98034-3431.

CATALINA ISLAND PHOTO COMPETITION

The Underwater Photographic Society of Northern California and the Blue Dolphin House of Avalon will host the first annual Catalina Island Underwater Photo Competition **February 6-8** in Avalon. Contestants shoot one roll of film on Saturday and submit their entries on Sunday. The registration fee includes two nights' lodging, Saturday dinner, Sunday brunch, film and developing, use of tank and weightbelt.

For information contact Nanci Davis, P.O. Box 2605, Avalon, CA 90704; telephone (213) 510-1811.

DESERT DIVERS BANQUET

Clive Cussler, author of *Raise the Titanic!*, *Deep Six* and many other bestsellers, will be the guest speaker at the 16th annual Antelope Valley Desert Divers banquet **February 7**. The event will be held at the Desert Inn in Lancaster, California and will begin at 7:30 pm. For information and reservations contact Walt Schob, (805) 273-4568.

ST. PETERSBURG SHELL SHOW

The St. Petersburg Shell Club, Inc., will present its 40th annual Shell Show **February 13-15** at the Community Center, 1 Park Place at 106th Avenue, Treasure Island, Florida. For information contact St. Petersburg Shell Club, c/o Barbara Ferguson, 6950 46th Ave. North, #51, St. Petersburg, FL 33709.

BOSTON DIVING SHOW

The 37th edition of the Boston Diving Show will be held **February 28** at the Boston Park Plaza Hotel, Boston, Massachusetts. The event includes daytime exhibits and seminars and an evening film show. Proceeds from the show will go to the Divers Alert Network.

For information contact Fred Calhoun, P.O. Box 291, Back Bay Annex, Boston, MA 02117; (617) 944-4785.

SEA ROVERS CLINIC

The Boston Sea Rovers will present their 33rd annual Underwater Clinic in Boston, Massachusetts **March 7**. The nighttime program will be held at John Hancock Hall and a meet the speaker party will follow. T. Walker Loyd, oceanographic consultant to Rolex USA, will be MC and Dr. Robert Ballard, chief scientist at Woods Hole Oceanographic Institution, will be the featured speaker.

The daytime program will be held at the Copley Plaza Hotel. Many exhibit booths will be present. For information contact Bunky Hodge, 174 Beech St., Rockland, MA 02370.

skin diver

STAFF

PAUL TZIMOULIS / V.P.,Group Publisher, Photography/Marine Division
BILL GLEASON / Editor-Publisher
CONNIE JOHNSON / Managing Editor
ART SMITH / Art Director
BONNIE J. CARDONE / Executive Editor
LESLIE BARROWS / Asst. Art Director
JIM WALKER / Feature Editor
JIM R. WARNER / Ad Service Coordinator
RANDALL RAY / Ad Service Coordinator
REBECCA L. THOMAS / Sr. Editorial Asst.
STEPHEN C. LIPIRA / Data Analyst
RAMONA AGUIRRE / Publisher's Secretary
GRACE RIVERA / Administrative Assistant

CONTRIBUTING EDITORS

BILL BARADA / Environmental Editor
HILLARY HAUSER / Special Features Editor
JIM & CATHY CHURCH / Photography Editors
JACK MCKENNEY / Adventure Editor
E.R. CROSS / Technifacts Editor
GERI MURPHY / Special Assignments Editor
ELLSWORTH BOYD / East Coast Editor
GEORGE COZENS / Technical Editor
ALFRED A. BOVE, M.D. / Medical Consultant

ADVERTISING SALES

MARIO VALENZUELA / Los Angeles
DAN DORAN / Los Angeles
KEITH CLINE / Los Angeles
CAROLINE GANNON / Atlanta
BRENT O'BRIEN/ / Atlanta
JAN ROUSE/ / Atlanta
LINDA TAYLOR-LANDUA / Atlanta
EDWARD MONK / New York
CAROLYN PASCAL / New York
SANDRA GONZALEZ-CHURCH / Chicago
KARIN BROCKMAN / Chicago

PETERSEN PUBLISHING COMPANY

ROBERT E. PETERSEN / Chairman of the Board
FREDERICK R. WAINGROW / President
ROBERT E. BROWN / Sr. V.P. Corporate Development
PETER F. CLANCEY / Sr. V.P. Nat'l. Advertising Director
JOHN DIANNA / V.P. Group Publisher, Auto Performance
THOMAS J. SIATOS / V.P. Group Publisher
PAUL TZIMOULIS / V.P. Group Publisher, Photo/Marine
ROBERT MacLEOD / Sr. V.P. Publisher
MILES KILLOCH / V.P. Publisher
PHILIP E. TRIMBACH / V.P. Financial Administration
JAMES J. KRENEK / V.P. Manufacturing
NIGEL P. HEATON / V.P. Circ. Mkt. Development
LEE KELLEY / V.P. Group Publisher, Auto Spec. Pub.
LEO D. LA REW / Treasurer/Assistant Secretary
MARIA COX / Director, Data Processing
BOB D'OLIVO / Director, Photography
CAROL JOHNSON / Director, Advertising Administration
BOB WEGGELAND / Director, Direct Marketing Division
DON McGLATHERY / Director, Advertising Research
VERN BALL / Director, Fulfillment Services
HENSON LACON / Director, Subscription Sales
FAX (213) 659-1074; TWX (910) 490-2534

ADVERTISING OFFICES

LOS ANGELES
Ralph Panico, Western Advertising Director
8300 Santa Monica Blvd., Third Floor
Los Angeles, CA 90069; Phone (213) 854-2222
NEW YORK
Charles E. Alexander, Eastern Advertising Director
Anthony Coelho, Branch Manager
437 Madison Avenue, 28th Floor
New York, NY 10022; Phone (212) 935-9150
DETROIT
Steve Flemion, Branch Manager
333 W. Fort St. Building, Suite 1800
Detroit, MI 48226; Phone (313) 964-6680
CHICAGO
Duane R. Placko, Midwestern Advertising Director
John Hancock Center
875 N. Michigan Ave., Suite 3131
Chicago, IL 60611; Phone (312) 222-1920
CLEVELAND
Dewey F. Patterson, Branch Manager
Three Commerce Park Square, Suite 605
23200 Chagrin Blvd.
Cleveland, OH 44122; Phone (216) 464-1522
ATLANTA
Terry L. Shiver, Branch Manager
Four Piedmont Center, Suite 601
Atlanta, GA 30305; Phone (404) 231-4004
DALLAS
Jeff Young, Branch Manager
800 W. Airport Fwy, Suite 201
Irving, TX 75062; Phone (214) 579-0454

PETERSEN MAGAZINE NETWORK

Ralph Panico/Western Advertising Director, Los Angeles
Charles C. Alexander/Eastern Advertising Director, New York
Duane R. Placko/Midwestern Advertising Director
Steve Flemion/Detroit Branch Manager
Dewey F. Patterson/Cleveland Branch Manager
Terry L. Shiver/Atlanta Branch Manager
Jeff Young/Dallas Branch Manager
Anthony Coelho/New York Branch Manager



- DEALER AND SALES REPRESENTATIVE INQUIRIES ENCOURAGED
- PRODUCT LIABILITY INSURANCE
- SEE NEW CATALOG

SMY®

WHOLESALE ONLY
1130 ANDOVER PARK EAST
TUKWILA, WA 98188 USA
TELEPHONE: (206) 575-0886
TELEX: 295934 SMYI UR
FAX: (206) 575-1637
ORDER — TOLL FREE:
1-800-872-2271

Reversible Fun Set is A Great Reflection on You





HARVEY'S

2505 S. 252nd, Kent, WA 98032

Made in U.S.A. Since 1957 and PROUD of it!

The Reversible Fun Set Suit is not your ordinary wetsuit. It is a combination one or two piece divesuit, waterski suit or boardsailing suit. It is a suit for All your watersports. As the name implies the Reversible Fun Set Suit is completely reversible. The two-tone colors are different on each side. This new concept of wetsuit comes with a full length one piece jump suit as well as a shorty that is worn under the jump suit for extra warmth or can be worn separately for warmer waters.

The Reversible Fun Set Suits come in 1/8", 3/16", and 1/4" Softstretch™ material. A full line of color coordinated matching Hoods, Boots and Gloves is available.

See your Harvey dealer today or send $2.00 for your complete color catalog.

Scuba Quiz

Category: Diving Skills

Topic: Out of Air Ascents

By Dennis Graver

A subject of interest and concern to divers is how to reach the surface if the scuba unit should become inoperative. There are many options and philosophies, but what would your choice be in various situations? Compare your choices to the current recommended procedures by answering the questions and referring to the answers on the following page.

1. The emergency swimming ascent performed by recreational divers is most correctly termed a/an:
- ☐ A. Free ascent
- ☐ B. Emergency swimming ascent
- ☐ C. Emergency ascent
- ☐ D. Buoyant emergency ascent

2. Arrange in order of preference the procedures currently recommended by major training agencies for out of air ascents:
- ☐ A. Emergency swimming ascent
- ☐ B. Buoyant ascent
- ☐ C. Buddy breathing
- ☐ D. Alternate air source

3. If at 30 feet with your buddy 20 feet away, the best option for an out of air situation is:
- ☐ A. An emergency swimming ascent
- ☐ B. Use of an extra second stage
- ☐ C. A buoyant emergency ascent
- ☐ D. A buddy breathing ascent

4. If at 70 feet with your buddy 15 feet away, the order of preference for an out of air situation is:
- ☐ A. An emergency swimming ascent
- ☐ B. Use of an extra second stage
- ☐ C. A buoyant emergency ascent
- ☐ D. A buddy breathing ascent

5. If at 100 feet with your buddy out of sight, the order of preference for an out of air situation is:
- ☐ A. An emergency swimming ascent
- ☐ B. A back-up scuba unit
- ☐ C. A buoyant emergency ascent
- ☐ D. An extra second stage (octopus)

6. The most correct procedure to prevent lung injury during out of air ascents is:
- ☐ A. Exhaling completely at beginning of ascent
- ☐ B. Continuous exhalation
- ☐ C. Emitting a continuous sound
- ☐ D. Exhaling normally with attempted inhalation

7. Lung volume during an out of air ascent should be:
- ☐ A. Nearly full
- ☐ B. Nearly empty
- ☐ C. About half full
- ☐ D. Minimal at all times

8. Pressure related injuries during ascents are most likely to occur:
- ☐ A. Halfway to the surface
- ☐ B. During the last 10 feet of an ascent
- ☐ C. During the first 10 feet of an ascent
- ☐ D. At all times

9. The ascent rate for an out of air situation should:
- ☐ A. Be no greater than 60 feet per minute
- ☐ B. Be as rapid as possible
- ☐ C. Vary with the circumstances
- ☐ D. Be rapid at the outset and slow at the end

10. The easiest and quickest way to slow a buoyant ascent is to:
- ☐ A. Increase frontal surface area
- ☐ B. Vent your buoyancy compensator
- ☐ C. Exhale and vent your BC
- ☐ D. None of the above

11. Unconsciousness is likely to occur during an out of air ascent if:
- ☐ A. The swimming speed is excessive
- ☐ B. The diver is overweighted
- ☐ C. The diver overexerted just before loss of air
- ☐ D. Any of the above occur

12. The best option for an out of air ascent to date has been:
- ☐ A. A back-up scuba system
- ☐ B. An extra second stage
- ☐ C. An emergency swimming ascent
- ☐ D. None of the above

13. The most correct and feasible current option for an out of air ascent is:
- ☐ A. Use of an extra second stage
- ☐ B. An emergency swimming ascent
- ☐ C. Use of a separate, back-up scuba unit
- ☐ D. Procedures agreed upon before a dive

14. The best option for an out of air ascent would:
- ☐ A. Be a compact back-up scuba unit
- ☐ B. Be BC rebreathing
- ☐ C. Have to be developed
- ☐ D. Be to limit diving to shallow water

15. Out of air ascents can be performed effectively if you:
- ☐ A. Maintain proficiency in ascent skills
- ☐ B. Reduce the options to a single procedure
- ☐ C. Concentrate on prevention rather than remedies
- ☐ D. All of the above

Scuba Quiz

Answers: Out of Air Ascents

1. B. Emergency swimming ascent. A free ascent is a submarine escape procedure with lungs at maximum volume. All out of air ascents are emergency ascents. Buoyant ascents are an emergency option, but lack control and are hazardous to practice.

2. A, D, B, C. There are independent and dependent options. The best independent option in shallow water is an emergency swimming ascent (ESA). From deep water, a buoyant emergency ascent (BEA) is required. The best dependent option is an alternate air source. The least desirable option is buddy breathing with one regulator.

3. A. An emergency swimming ascent. By the time you reach your buddy and obtain air, you could be at the surface. From shallow depths, your best action is to simply swim to the surface while controlling expanding air in your lungs.

4. B, C, D, A. An ESA is possible, but questionable. Buoyancy for the ascent is in order if it must be performed independently. From such a depth, obtaining air from a buddy is the appropriate action, especially if you and your buddy are proficient with air sharing procedures.

5. B, C, A, D. For depths more than 60 feet, an alternate air source is recommended. In its absence, buoyancy must be established for an ascent from deep water. An extra second stage is of no value to the wearer in this situation. Swimming should be the last resort for the situation described.

6. D. Exhaling normally with attempted inhalations. Air trapping can result with continuous exhalations, even though lung volume is low! Emitting a sound restricts airflow by 50 percent and can be hazardous. "Blow and go" has been proven to be dangerous as well. Exhaling with periodic attempts to inhale is the safest procedure.

7. C. About half full. Low lung volume coupled with continuous exhalation can cause collapsed airways and result in a lung overexpansion injury. Low lung volume is also a stimulus to breathe. The lungs should be neither full nor empty.

8. B. During the last 10 feet of an ascent. The closer to the surface, the greater the rate of pressure change. For example, volume doubles from 33 feet to the surface, but it takes 66 feet of ascent to double a volume of air from a depth of 99 feet. Be especially aware of lung volume when nearing the surface.

9. C. Vary with the circumstances. Divers typically exceed 60 feet per minute during normal ascents, so they almost certainly will during an emergency! Ascending as rapidly as possible is incorrect. Doubling speed through water requires four times as much energy and can also result in the bends. The best approach is to hurry, but consider effort and the possibility of bends.

10. A. Increase frontal surface area. The fastest and most effective means to slow a buoyant ascent is to arch the back and spread the arms and legs. This is termed "flaring" and it is extremely effective owing to the drag created.

11. D. Any of the above occur. Believe it or not, hypoxia will result if you swim upward too rapidly (see answer 9). A low oxygen situation also results if a diver is negatively buoyant and must ascend from a depth of 50 feet or more. Pacing activity on the bottom is necessary so you will be able to deal with an out of air situation.

12. A. A back-up scuba system. There is no question this is the best option, but few divers use it regularly. Problems include expense to obtain and maintain, extra bulk and weight.

13. D. Procedures agreed upon before a dive. There are many options and divers are equipped differently. The best procedures for an out of air situation are those agreed upon by you and your buddy before each dive. An agreement will be of little value, however, if you don't have the skills.

14. C. Have to be developed. According to discussions from the Undersea Medical Society workshop on emergency ascents and my research on the subject, a compact rebreathing device with an independent air supply would be the ideal solution. No such device is available on the U.S. market.

15. A. Maintain proficiency in ascent skills. A single option puts all your eggs in one basket and is not advised. You need to learn more than one method, but it is very important to keep proficient in emergency skills. Refresher training is excellent.

Don't feel badly or get upset if you missed quite a few of the questions. It is quite likely that information in this quiz contradicts what you were taught when you learned to dive. Procedures change as more is discovered about physiology and as equipment is developed. You need to keep up to date and we commend you for caring about safety by taking this quiz. I hope the information shared makes you a safer diver. Knowledge must be coupled with skills for safety, however, so continue and renew your training in diving.

NEW!

SHADOW™ Octopus Regulator



The in-line octopus unit that operates in conjunction with your power inflator hose.

Put your octopus regulator where it's most convenient — connected right to where your power inflator hose used to be.

No more need for an extra hose. No more dangling octopus getting in the way. No more susceptibility to damage or contamination.

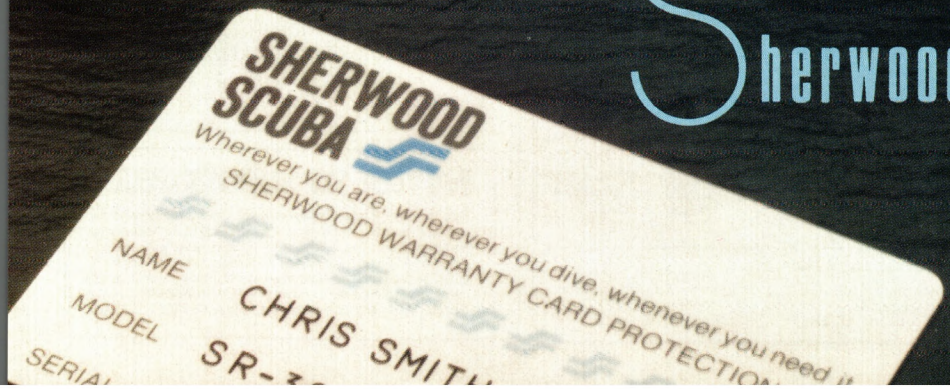
The Shadow octopus fits on your oral inflator hose and can be customized to your personal requirements with a handy Velcro* tiedown. A down-sized exhaust shroud shrinks the package even more.

The dual-purpose Shadow is ideal for your below-the-surface adventures. It's performance-matched to all Sherwood regulators and is available in four colors: blue, black, yellow or orange.

Like all Sherwood® regulators, the Shadow octopus regulator comes with lifetime limited warranty protection!

See the NEW Shadow octopus regulator wherever Sherwood Scuba products are sold.

*Velcro is a trademark of Velcro U.S.A., Inc.



Sherwood's *got you covered*

SHERWOOD SCUBA

Lockport, NY 14094 USA

A DIVISION OF harsco CORPORATION

924-061

In the beginning there was drysuit warmth.

Now Seatec introduces two brilliant advances in drysuit technology.

Comfort and mobility.

Seatec's Deluxe Thermotec™ Suit stretches *vertically,* conforming more closely to your body's design. The result–less bulkiness and more diving pleasure.

Ask your dealer to show you the complete line. Seatec has a drysuit to fit your every need. Even your pocketbook.

Seatec. When you want to stretch your diving enjoyment.

Send $2.00 for our full color catalog and emblem.



SEATEC
600 N. Batavia
P.O. Box 1109
Orange, CA 92666

Seatec by a stretch.



Christmas Comes Year-Round With a White's PI 1000!

This is a Sophisticated Underwater Pulse Induction metal detector. It is easy to use, guaranteed to depths of 200 feet, and gives both an audible and visual target indication.



$499.95

- Excellent Sensitivity for Coins, Rings, and Relics made of Gold, Silver, and Other Metals.
- Compare the PI 1000 to Metal Detectors Costing Twice the Price!

FREE CATALOG
AUTHORIZED DEALER
TOLL FREE: 1-800-547-6911

White's
1011 Pleasant Valley Rd.
Sweet Home, OR 97386
Dept. SD-4
DEALER INQUIRIES INVITED

INTERNATIONAL CONTACT POINTS

White's Electronics, Intl., Ltd.
13 Harbour Rd.
Inverness, Scotland 1V1 1RY

Burns Scott Intl.
14 Queens Rd. - 11th Floor
Melbourne 3004
Eastern Australia

CATALINA PHOTO COMPETITION

The Underwater Photographic Society of Northern California and the Blue Dolphin House of Avalon, Santa Catalina Island, are hosting a beach dive photo competion. The Catalina Island Underwater Photo Competition is scheduled for February 6-8. Cross-channel transportation is provided by sea by Catalina Express from San Pedro, (213) 519-1212; Catalina Cruises from Long Beach and San Pedro, (213) 514-3838; and Catalina Passenger Service from Newport Beach, (714) 673-5245. Helicopter service is provided by Helitrans, (800) 262-1472 or Island Express, (213) 491-5550. Resort Commuter Airlines flies into the Airport in the Sky on the island: (800) 523-2000, (714) 261-2444.

Registration is from noon to midnight,



Friday, February 6 at the Blue Dolphin House, 603 Beacon Street, Avalon. The registration fee of $115 (nondiver $100) includes two nights semi-private lodging in fully equipped apartments with kitchens, barbecue dinner Saturday night (no-host bar), champagne and all-you-can-eat Sunday brunch, one roll of 36 exposure Ektachrome 100 ASA film, use of one 72 cubic foot tank with air, weightbelt and awards ceremony.

Saturday morning from 7:30 to 9:00 am divers may pick up their film (late arrivals may register). All film must be in by 3:00 pm so it can be airlifted to the mainland to be developed in time for judging the following day.

On Sunday, film will be returned at 10:00 am and a champagne brunch will be served. All entries must be in by noon. Judging and awards will follow the brunch and door prizes will be drawn.

For more information and registration forms call or write Nanci Davis, P.O. Box 2605, Avalon, CA 90704; (213) 510-1811.

NOTICE TO SUBSCRIBERS:

From time to time, we permit reputable companies to send announcements of their products or services to our subscribers in the mail. Requests for this privilege are examined with great care, to be sure they will be of interest to our readers. If you prefer not to receive such mailings, and want your name in our files only for mailing the magazine to your home, please write us, enclosing a current address mailing label. Please address your request to: **PETERSEN PUBLISHING CO., Attn: Charlotte McCoy, 6725 Sunset Blvd., Los Angeles, CA 90028.**

INTRODUCING THE NEW NISSAN PATHFINDER SE 4X4.



BREAK AWAY

NOTHING THIS RUGGED

It started with an obsession: Make a vehicle tough enough to conquer almost any trail. Yet sophisticated and comfortable enough to be at home on city streets and superhighways. What was created was a 4X4 so different, so new, so versatile that it literally breaks new ground in transportation. Recreation. All-around driving style and comfort. And that's why we named it Pathfinder

LUXURY AND COMFORT. Inside, Pathfinder SE's level of luxury defies comparison. And it's all designed to put you in complete control. To give your passengers uncompromised luxury and comfort. The 5-way adjustable driver's seat and tilt steering column let you customize your position. The super-wide windshield gives you a commanding view. For easy loading, the front passenger seat has a quick-release, slide-forward feature so passengers can actually walk into the rear bench seat. There's room for three to sit back and relax. Side windows pop open for flow-through rear seat ventilation. And the floors are covered in deep pile carpeting. Up front, the 4-speaker, electronically tuned AM/FM stereo delivers award-quality sound. Order the Sport/Power Package and you get a cassette, plus a pop-up sunroof and power windows, door locks and mirrors. And for easy storage, the rear compartment has a 2-way action: open the liftgate and fold down the seat for big loads. Flip up the glass hatch to stow smaller items with ease.



CHOOSE YOUR RIDE. Pathfinder is one sophisticated vehicle. It even lets you tune your ride with optional Sport/Power Package. Push a button and this exclusive Nissan feature adjusts the suspension. Go from SPORT setting for trails to TOURING position for highways. Change from 2 to 4-wheel drive just as



EVER FELT THIS RICH...



easily with a shift of a lever. And you never have to get out of your seat. Because the front hubs lock automatically.

POWER PACKED. This 4X4 is made to get up and go. Its dominant 3.0-liter, fuel-injected, 140 hp V6 provides true ground-breaking power. With standard 5-speed stick or available automatic transmission, all the power is applied to the road easily. Where you want it. When you want it.

The standard big-bite P235/75R15 steel-belted radials give sure grip. With power steering standard, Pathfinder lets you master even the most difficult driving conditions easily. Surely.

THERE'S NOTHING LIKE IT. Making a vehicle that's tough wasn't enough. Neither was making one that was civilized. We had to break new ground and create a vehicle that does both. We did it. It's Pathfinder.

V6

AVAILABLE: 5 YEAR/100,000 MILE WARRANTY. Pathfinder is built rugged. It's crafted well. That's why we can offer true security and back Pathfinder with an optional 5 year/100,000 mile extended service—Security Plus—at participating Nissan Dealers.

PATHFINDER



OR RODE THIS SMOOTH.

Pathfinder is just about everything you ever wanted in a car or utility vehicle combined. It has luxury for the city. It's tough when you need it. It's a 4X4 bruiser on command. And it gives you all of this with surprising agility and handling.

EXCEPTIONAL RIDE. A smooth ride starts with a great suspension system. Pathfinder is unique. Up front, it has independent suspension. With it, each tire acts by itself. While one tire absorbs a bump, the other can dip into a hole. Independent of each other. That way the whole vehicle doesn't absorb the individual shocks. This helps increase steering control. Keeps the steering wheel from lurching from one side to the other.

In back, Pathfinder has a 5-link coil suspension. The only 4X4 in its class to have one. It's specifically designed for passenger comfort. The coil springs give it a progressive suspension. On highways and streets, it can absorb small bumps and still give a smooth ride. Yet, on rough trails, it's stiff enough to cushion big jolts from tough driving.

Together, independent front and rear coil suspension give Pathfinder a controlled, smooth ride like no other 4X4 passenger vehicle.

WIDE, LONG AND HIGH. By placing the tires wide apart, Pathfinder develops a secure stance. It helps stabilize the ride and keep it level. Keep it civilized and controlled even on rocks.

On highways, the long wheelbase makes Pathfinder stable. Maneuverable. Responsive at speed.

And because Pathfinder has a high ground clearance, you have the confidence to take on the rough roads. The tough trails.

SMOOTH, SURE POWER. The high-torque V6 engine makes it a performance machine no matter where you drive. High up in the mountains, on roads or off, the extra torque of this V6 keeps it running smooth. Breathing easy. It gives you power in reserve. You can tear up trails. Create your own. Take a drive in the country. Or a trip on a highway. This engine is built for versatility. So is Pathfinder

IT STANDS ALONE. Pathfinder is a breakthrough vehicle. Nothing else combines this much luxury with this much performance and toughness. To fully understand it, you have to drive a Pathfinder. Drive it in the wilds. It's tough. Take it out on Saturday night. It's sharp. But don't miss out. Test drive one today at your Nissan Dealer.

NISSAN NISSAN

THE BREAKTHROUGH IS PATHFINDER

THE NAME IS NISSAN

PATHFINDER SE SPECIFICATIONS:

INTERIOR
Driver's seat—5-way adjustable
Headroom—39.0"
Legroom—41.9"
2nd seat—Fold-down bench
Headroom—36.8"
Legroom—33.1"

EXTERIOR
Length—171.9"
Width—66.5"
Height—66.1"
Wheelbase—104.3"

POWER
Displacement—2960cc.
Horsepower—140 @ 4800 RPM
Induction—Single Point Fuel Injection

SUSPENSION
Front—Independent torsion bar
Rear—5 link coil

TIRES
P235/75R15
31.0x10.5R15*

STANDARD FEATURES
Cruise Control
Variable Intermittent Wipers
Adjustable Steering Column
AM/FM 4-Speaker Stereo
Cloth Upholstered Bucket Seats

CARGO AREA
Cargo Volume
2nd Seat up—31.4 cu. ft.
2nd Seat folded down—71.3 cu. ft.
Length
2nd Seat up 28.7 inches
Width (maximum)—55.1 inches
Between Wheel Houses—39.0"
Height—34.3 inches

OPTIONS
Air Conditioning
Automatic Transmission
Swing-Out External Spare Tire Carrier
Pop-Up Sunroof*
Power Windows
Door locks, Mirrors*
Driver-Adjustable Shocks*

*Available with optional Sport/Power Package.





Wenoka's Color Coordinated Dive Accessories

Reflect Your Personality

TEXT AND PHOTOGRAPHY BY BONNIE J. CARDONE

The old adage—all divers look alike underwater—is no longer true. Today we don't have to be black neoprene clones of each other, we can express our individuality by dressing in a rainbow of colors. Is pink your passion; does turquoise blue match your aura; is your wardrobe replete with lovely lavender? Now these hues are available in dive equipment, too. Indulge yourself—colors are fun and besides, they don't cost any extra.

Although colorful dive gear was originally designed to appeal to the growing number of women divers, men liked it, too. Because of that, manufacturers have been producing colorful equipment in larger sizes and men have been turning up in a Miami Vice assortment of pastels. And, why not? Men shouldn't have to make do with basic black dive gear only—they look good in colors.

Pretty equipment, such as that from Wenoka, is a boon to underwater photographers. Now we can color coordinate model and underwater scene. Instead of having a black blob posed next to a beautiful crinoid, seafan, fish, etc., we can photograph a model clad in a complementary or similarly colored outfit. Shown on this page is just part of Wenoka's colorful new gear for 1987. Imagine Wenoka's percussion pink on a diver hovering near pink soft coral in the Philippines. Picture a diver wearing a turquoise mask and snorkel eye to snout with a a golden seahorse at Frederiksted Pier in the USVI. Of course, the lavender gear would be wonderful on a diver examining a pair of flamingo tongues on a purple seafan in Cayman waters.

Even if you don't travel to tropical areas, colorful gear will enhance photos taken in your local waters. To paraphrase a TV commercial: Picture the possibilities!

Have I got your attention? If so, you'll be interested in learning more about Wenoka equipment. For instance, the Advanta mask ($51.95), shown in pink, is also available in blue, red, smoke, turquoise and lavender. The Mini Cabrilla ($59.50), shown in lavender, is available in the same colors as the Advanta, plus yellow. The Cabrilla ($61.95), shown in turquoise, also comes in blue, red, smoke and yellow. Wenoka masks have several unique features: Their silicone skirts are slightly tinted to match the color of the frame; they come with protective plastic carrying cases, tinted to match; and they are canted 11 degrees to provide better downward vision. In addition, all three masks discussed here have a low volume; extra wide straps; strap locks that make adjustments—even underwater—easy; and special clips to contain strap ends. There is a style to fit every face and fancy.

Wenoka's Sea Style Ultra Light snorkels ($16.95), come in eight colors, one to match every Wenoka mask. They have clear silicone snorkel keepers and silicone mouthpieces tinted to match the color of the barrel. The mouthpieces swivel for custom positioning; the barrels are contoured to eliminate drag and fit close to the head.

Wenoka started out as a manufacturer of just dive knives: Today the company offers the finest, most versatile selection found anywhere in the world. Wenoka knives have been available in red and black for years,

CHALLENGE with a capital SEA



CALL TOLL FREE
1/800/824-9027
In California, call
1/800/367-3947
Receive the Industries Most Comprehensive Literature.

A career in the exciting field of commercial diving awaits the qualified trained diver. If you're interested in the challenge and this rewarding profession, prepare yourself properly. No school has as much to offer as the College of Oceaneering. We're the only school that offers a lifetime job referral service. The only school training divers in atmospheric diving suits. The only school with a complete operational Bell/saturation system. The only school offering 30 day full tuition refund guarantee. And our tuition and facilities are unmatched in the field. Remember, life is too short to have a boring job.

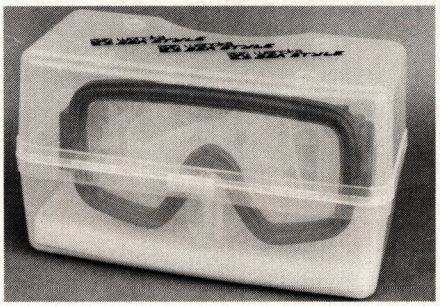


College of Oceaneering
Los Angeles Harbor, 272 S. Fries Ave.
Wilmington, CA 90744-6399 (213) 834-2501

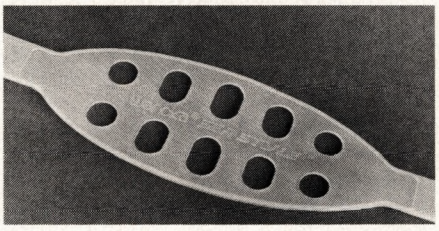
WENOKA COLOR

now certain models also come in lavender, turquoise, pink and yellow. This includes five Z-lock models. All of these fit in the same sheath; the handles are interchangeable, too. Z-lock models have a retractable stainless steel button on the handle that locks the knife into its sheath. Wenoka won my gratitude years ago for a very simple, but thoughtful, innovation: They put more holes in the sheath straps to accommodate smaller divers. Before that, in order to get a strap to fit me, I had to punch my own holes and these tended to tear. Wenoka's colorful Z-lock knives sell for $55 each.

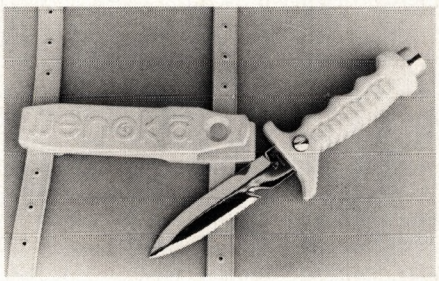
For information on these or other Wenoka products contact the company at P.O. Box 8238, West Palm Beach, FL 33407. Isn't it time you showed other divers the color that is you?



Wenoka masks come in plastic carrying cases tinted to match the mask frame.



The mask straps are extra wide and have oval holes to help keep them in place.



A retractable stainless steel button locks the Z-lock knife into its special sheath.

NEW ENGLAND DIVERS-EAST

Louis A. Servizio, president of Northeast Scuba, has formed a new corporation to purchase certain assets of New

England Divers, Inc. New England Divers-East, Inc., will conduct its business under the name of New England Divers, at 131 Rantoul Street, Beverly, MA.

"The combined operations of New England Divers and Northeast Scuba will allow us to spread large overhead expenses such as insurance, back office and advertising over a larger sales base," said Servizio. "Many of the new services offered at Northeast Scuba, including a scuba travel agency (in conjunction with Crimson Travel of Boston), heated indoor pool on location, in-house credit card and instructor level training will also be offered . . . ."

DIVING MEDICINE REVIEW CASSETTES

Dr. Kenneth Kizer and Jim Meuninck have teamed up with DAN (Diver's Alert Network) to create a unique audio cassette, The Diving Medicine Review. Now divers can save time and avoid mistakes by listening to the first three minutes of an audio cassette enroute to the dive site. The taped message starts with a succinct



predive checklist and safety review. The remainder of the one hour tape provides timely safety information on dysbarism, embolism treatment protocol, flying and diving, altitude diving, diving travel, women and diving and much more. DAN's information and emergency numbers are printed on the cassette label.

Part of the purchase price of each tape includes a donation to DAN. So help yourself, help your buddy, help DAN, send $6.95 (check or money order) to Media Methods, 24097 North Shore, Edwardsburg, MI 49112.

GRAFLEX INTERNATIONAL

Graflex/Subsea has a new name, Graflex International Corporation. For more information contact Graflex International, 975 West 17th Street, Riviera Beach, Florida 33404; (305) 844-8937.

SURFACE INTERVALS WITHOUT BURNING

(Thanks to surfers!)

BULLFROG® AMPHIBIOUS FORMULA® Sunblock, developed originally for surfers, has now been discovered by divers. BULLFROG stays on six hours in and out of the water. Won't wet off or sweat off. Perfect for an all day dive.



As one experienced diver described, "I have learned the hard way that too much sun on the surface can ruin an otherwise idyllic dive. Not so with BULLFROG. BULLFROG takes the dive with you." BULLFROG. Works in and out of the water.

BULLFROG® SOLD HERE

BULLFROG® AMPHIBIOUS FORMULA® Sunblock
Patent Pending—SPF 18—Chattem, Inc.—(615) 821-4571

DELTA 38 DIVE BOAT

Certified to 28 + 2
POWERED BY
CAT 3208TA-375 HP
Approximate Cruise 17 mph
Using about 11 GPH

305-783-3536

DELTA
BOAT WORKS
746 Mullet Road
Port Canaveral, FL 32920



Diving Medicine

BY ALFRED A. BOVE, M.D., PH.D.

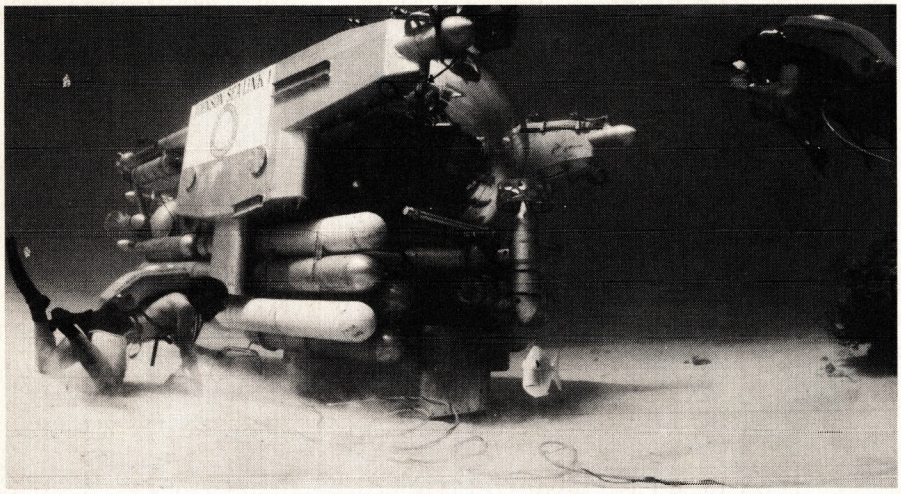
There have been a number of recent news items involving deepsea search and recovery; including the recovery of the *Challenger* wreckage off the Florida coast and the discovery of the *Titanic* in the North Atlantic. Both operations depended heavily on seafloor searching by submersibles. This month I will describe some of the principles of operation of these vehicles and of the stationary submersible habitats that are used for deep operations requiring prolonged exposure to excessive depths.

HABITATS

There are several types of diving habitats. These are usually multichambered cylindrical structures that may contain all the amenities needed to live for several weeks to several months on the seafloor. The atmosphere in the habitat is usually held at ambient pressure and the breathing gas may be either air, a special nitrogen-oxygen mixture or, when the habitat is placed at depths exceeding about 150 feet, a helium-oxygen mixture.

Divers in past centuries made a kind of habitat from an open bell, which was submerged to trap a quantity of air for men working on the seafloor. One of the first open diving bells was designed by Sir Edmund Halley—of comet fame—in 1716. The atmosphere in the bell was compressed air. Pressure in the bell was maintained at ambient by the open bottom in contact with the sea. Divers, fortunately, did not spend long times in the bell, otherwise they would have developed decompression sickness.

There was no means of scrubbing carbon dioxide from the air in the bell, a common problem in closed environments, but Halley's bell did have a valve at the top to expel "hot air." Fresh air was delivered to the bell from barrels that were lowered alongside. Actually, this is not a good system for venting carbon dioxide because that gas is heavier than air. In spite of its limitations, the Halley bell was the precursor of the submersible habitats we use today for deep, prolonged diving operations.



photo/Betty Klein

The Johnson Sea-Link helped in the recovery of the *Challenger* wreckage. It is unique in having the pressure hull made of clear acrylic plastic—offering a wide angle of view.

Habitat Breathing Mixtures for Different Depths

Depth ft.	Pressure atm.	Oxygen %	Nitrogen %	Helium %
50	2.5	8.4	91.6	–
150	5.5	3.8	–	96.2
300	10.1	2.1	–	97.9

These gas mixtures provide the same amount of oxygen as is found at one atmosphere. Data are from the book *Living and Working in the Sea* by J.W. Miller and I.G. Koblick, published by Van Nostrand Reinhold Co.

Several well reported experimental studies have been carried out to determine whether adverse effects occurred in habitat divers. This was done to determine the proper decompression schedules for these long saturation dives and to develop other applications of seafloor technology. Such famous projects as Sealab by the U.S. Navy, Conshelf by Captain Jacques Cousteau, Man in the Sea by Edwin Link, Tektite, Helgoland and others all provided the basis for understanding the effects of these prolonged exposures to pressure and depth.

Presently, commercial diving companies use a variation on the habitat theme by having divers working on the seafloor as deep as 1,200 feet. These divers live in a pressurized habitat, but it is on the support ship rather than on the seafloor. The aquanauts are delivered to the work site underwater by a closed, pressurized bell that mates with their habitat on the ship. Such systems are used commonly in oil recovery from the sea.

One person who contributed greatly to the concept and development of the pressurized habitat is Captain George Bond, a diving medical officer in the U.S. Navy. Bond, who died in 1983, is known as the father of saturation diving. A museum in Panama City, Florida is devoted to the development of saturation diving and honors him for his contributions.

The use of seafloor and shipboard habitats for things other than oil recovery and submarine rescue is now being explored. One of the most interesting possibilities is the idea of having a seafloor farm that grows marine plants and animals, tended by farmers who live in submerged habitats. This concept is for future development and will certainly materialize if our land food production cannot keep up with population demands.

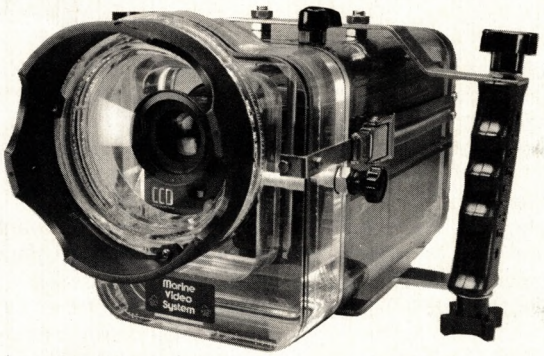
In the most recent seafloor searches, no habitat diving was done. Rather, submarines or submersible vehicles of various types were used. These differ from habitats in several respects.

SUBMARINES AND SUBMERSIBLES

Submarines always instill in me a sense of mystery because of their extensive military use. Many movies have depicted an exciting, mysterious environment in combat submarines and the TV series Voyage to the Bottom of the Sea depicted the peaceful use of a high-tech submarine. The first description of a modern day submarine was presented by Jules Verne in *20,000 Leagues Under the Sea*. When Verne wrote this story, there were no submarines, as we know them today, and no mysterious power that required refueling at long intervals. The modern nuclear powered submarine can cruise the seas for months without ever breaking the surface. This characteristic allowed the U.S. Navy submarine *Nauti-*

(Continued on Page 134)

IKELITE Offers a Choice.



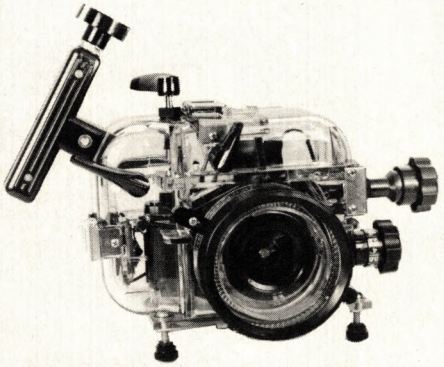
VISIBLY SUPERIOR VIDEO

VHS and 8mm systems. Ikelite Video systems offer superior results, safety and camera control functions at half the cost. Optional wide angle lenses are available.



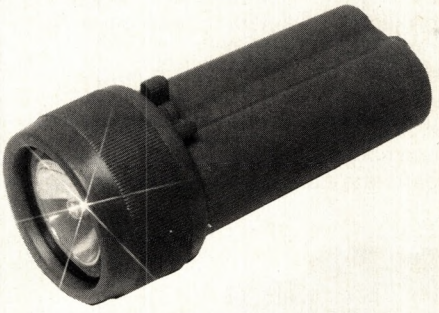
DISCOVER THE DISC

First time get sharp, clear photographs. Simply point and shoot. Ikelite disc system does the rest for you automatically. Use the close-up accessory to photograph small marine subjects as close as 8 inches.



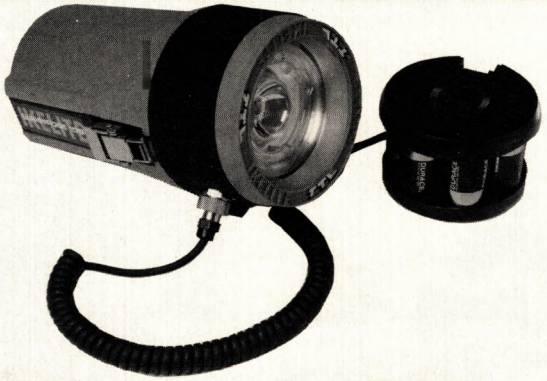
SLR SYSTEM DOES IT ALL

All new for '87. The only 35mm system to offer automatic focus, automatic aperture, TTL auto exposure and motorized film advance. Interchangeable lenses and ports.



MINI C-LITE Halogen

Hi-intensity halogen bulb for unsurpassed intensity and versatility. Small size is easy to carry.



STROBES FOR ALL CAMERAS

Designed and built to suit both the professional and amateur photographer. TTL auto exposure and slave modes. High intensity output with fast recycle. Modeling light.

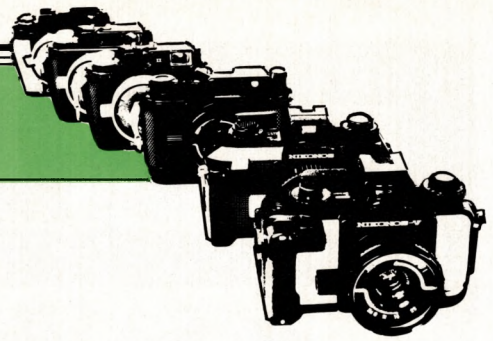
ikelite
UNDERWATER SYSTEMS

50 West 33rd Street
P.O. Box 88100
Indianapolis, Indiana 46208
(317) 923-4523

Contact Your Local Ikelite Dealer

SDM'S

Nikonos Photo Course



LESSON I: Why The Nikonos V?

TEXT AND PHOTOGRAPHY BY GERI MURPHY

If you have ever thought about taking underwater pictures, you probably wondered what kind of camera to use. In fact, you probably have a lot of questions about cameras, but are embarrassed to ask them.

Over the next few issues we will be answering a lot of those seemingly awkward questions. This particular course is devoted to teaching you the basics of 35mm U/W photography, using the Nikonos V camera manufactured by Nikon, Inc. Why a whole instructional course based on just one camera? There are a number of good reasons for it.

There are many advantages in selecting the Nikonos V over most other 35mm cameras. First of all, it was designed and built specifically for use underwater. Most of the parts are corrosion resistant both inside and out. Should this camera be flooded, it can be washed with distilled water, dried out and easily repaired. Very few other 35mm cameras offer this important advantage.

Important to most aspiring photographers is the fact the Nikonos V is capable of taking professional quality photographs. I have shot many of the underwater cover photos of SKIN DIVER Magazine with this camera and use it for more than 70 percent of my professional photography assignments. The lenses made for the Nikonos V are of the same professional quality as all Nikon lenses, they provide wire sharp images and excellent depth-of-field. We will talk more about that in later issues.

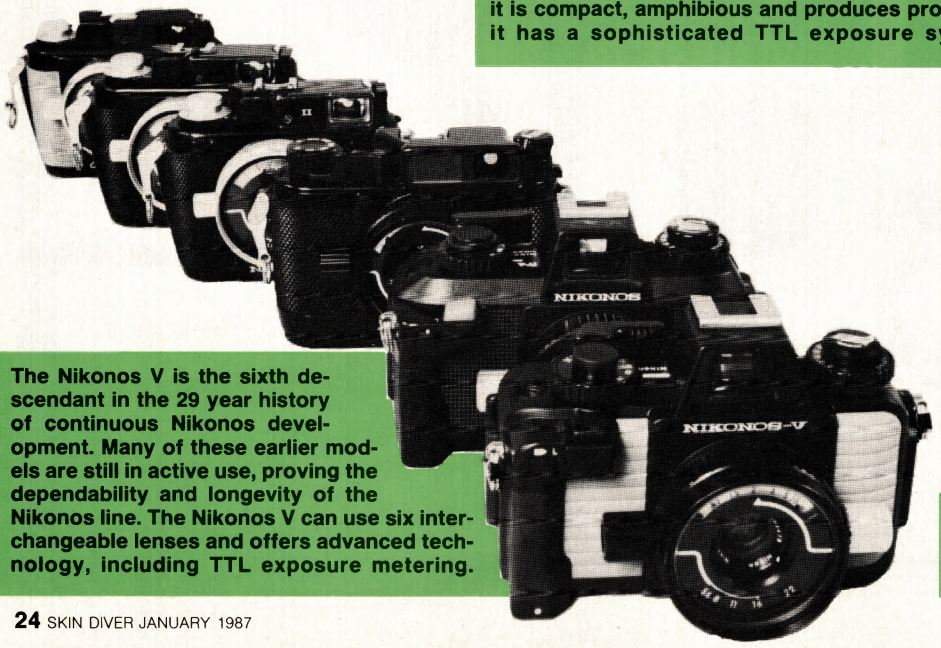
One of the unique advantages of the Nikonos V is that it is an amphibian: It can operate both underwater and on land. The same is true for the 35mm lens that comes standard with the camera. However, there are other Nikonos lenses that

NIKONOS V ADVANTAGES

* Built for underwater use
* Professional quality photos
* For use both on land and U/W
* Interchangeable lenses
* Automatic exposure control
* 27 years of development
* Most cameras in field
* Most number of accessories
* Easy to learn to operate



The Nikonos V is the most widely used camera in underwater photography because it is compact, amphibious and produces professional quality photographs. Although it has a sophisticated TTL exposure system, it is very simple to operate.



The Nikonos V is the sixth descendant in the 29 year history of continuous Nikonos development. Many of these earlier models are still in active use, proving the dependability and longevity of the Nikonos line. The Nikonos V can use six interchangeable lenses and offers advanced technology, including TTL exposure metering.



Nikonos lenses have spring loaded bayonet mounts and can be inserted or removed with a twist of the wrist.



Nikonos-V automated sophistication. New accuracy and convenience shooting underwater or above.



Nikonos-V with TTL (Through The Lens) flash metering brings you a totally new level of accuracy assuring precise exposure control and the revolutionary convenience of not having to measure or calculate anything.

That's because the camera itself controls the flash, reading the light that falls on the film plane and shutting off the flash at the moment of optimum exposure. You get great pictures every time. Just focus and shoot.





Manual Shutter Speed Control
With a full range of manual shutter speeds at your command, you have the ability to make the exposure *you* want. You can compensate for backlighting, overcome difficult conditions, take advantage of unusual situations.

Example: This shot made at 1/60 sec., f8 and top lighting with the SB102 at manual 1/4 power. Creative control is in your hands.



Large Built-in Viewfinder
The answer to divers' prayers—a viewfinder big enough to really work underwater. Bright LED display shows you what the camera is doing in every situation. And to make sure you get what you see, there's an incredibly accurate light meter built-in, the most accurate ever designed for underwater use.



Nikonos-V even does a little thinking for you with its advanced electronic extras. Suppose you've just changed film and forgotten to reset the shutter speed from R (who hasn't?). The camera won't let you miss great pictures. It won't fire until you reset the shutter speed for proper flash synchronization. Or if you've been shooting on land (something your Nikonos-V does superbly 365 days a year)—at shutter speeds higher than 1/90th, the camera automatically resets the shutter speed to 1/90th when the Speedlight is connected and turned on. Even if you forget, the camera won't.

Accuracy, convenience, control—all yours with the automated sophistication of the Nikonos-V. See the entire system at your Nikonos dealer, or contact Nikon Inc., 623 Stewart Avenue, Garden City, N.Y. 11530.

©1986 NIKON INC.

Nikon®
We take the world's greatest pictures.®

Nikon EXTRA One year membership in the Nikon USA Club is free with every purchase when you submit the Nikon Inc. USA Club Application.

may be used only on land or underwater.

Another distinct advantage of the Nikonos V is the number of lenses available for it. Nikon produces six different lenses that will fit the Nikonos V. They are equipped with spring loaded bayonet mounts and can be inserted or removed with a twist of the wrist. In addition to the lenses, there are a number of close-up and macro accessories that further expand the optical capabilities of this camera. At this date the Nikonos V is the only 35mm amphibious camera with interchangeable lenses.

Another major advantage of the Nikonos V is its automatic exposure capabilities. This underwater camera is equipped with a computer microprocessor that measures the light coming through the lens and automatically calculates the correct exposure. This type of exposure control is known as TTL (Through-The-Lens) and will work either in available light or with electronic flash.

The automatic exposure system of the Nikonos V makes it easy for a beginner to operate. Yet, a professional can override the automatic controls for special lighting situations.

One of the compelling reasons for choosing the Nikonos V is its long lineage in the photography field. It is actually the sixth generation in the 29 year history of Nikonos development. The very first model (known as the Calypso) appeared in 1959. Since that time an estimated 150,000 Nikonos cameras have been used around the world. In other words, the Nikonos V has the benefit of more than two and one-half decades of testing and improvement. It is a time proven product. Incidentally, all of the lenses from prior Nikonos models will fit the Nikonos V.

Considering the number of Nikonoses on the marketplace, it is no surprise to learn the greatest number of underwater photo accessories are made for this camera. The selection is vast, including more than 100 different strobes, flash arms, macro tubes, close-up attachments, viewfinders, trays and lenses. No other underwater camera offers such a wide array of accessories.

Another strong point in favor of the Nikonos V is its popularity. An estimated 80 percent of all 35mm still U/W photographs are shot with a Nikonos. There are more repair facilities, more camera rental departments and more dive resorts devoted to the Nikonos than any other single underwater camera.

We have attempted to make this course easier for you by narrowing the focus of coverage to just one camera system. Hopefully, this approach will eliminate any confusion over references to other types of equipment. Learning to operate one underwater camera system well will allow you to expand your knowledge and skills later if you desire.

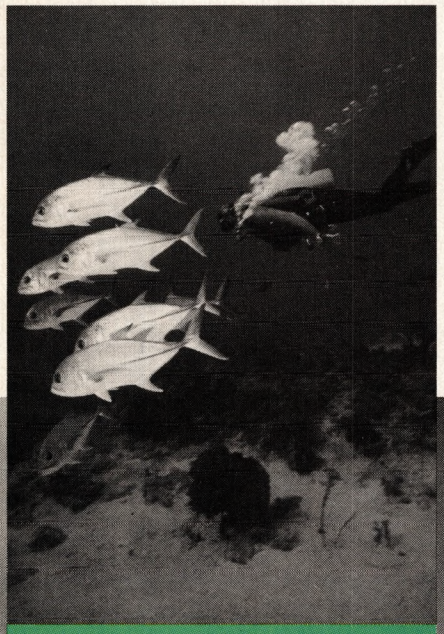
One more point. Don't be intimidated by the overwhelming number of lenses and accessories available for this camera. The Nikonos V camera and 35mm lens are easy to use. If you start with just the camera and learn to use it well, everything else will come naturally.

INTERCHANGEABLE LENSES

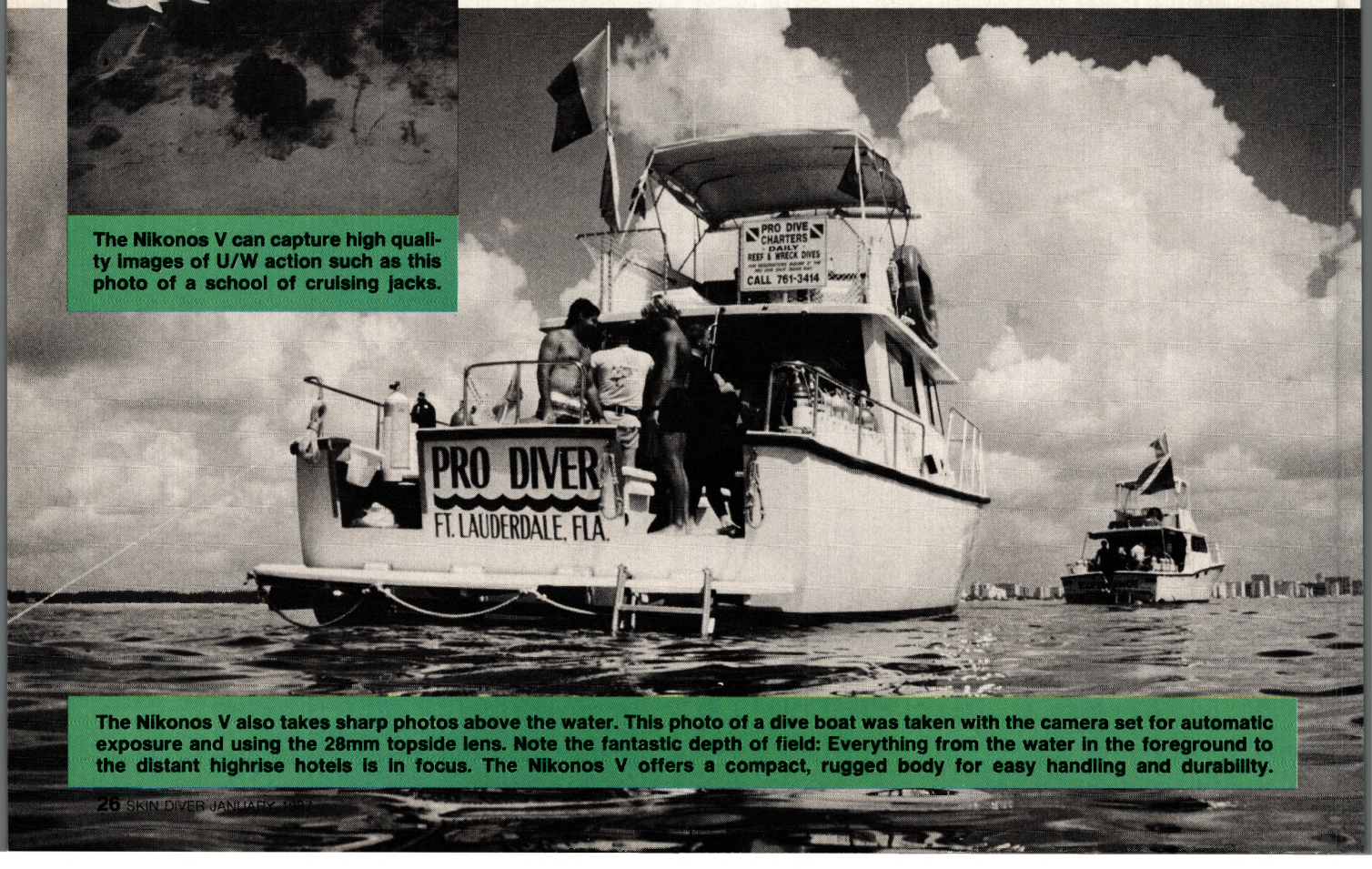
80mm	amphibious lens
35mm	amphibious lens
28mm	land lens
28mm	underwater lens
20mm	underwater lens
15mm	underwater lens

NIKONOS HISTORY

Calypso	1959
Nikonos I	1963
Nikonos II	1968
Nikonos III	1975
Nikonos IV	1980
Nikonos V	1984



The Nikonos V can capture high quality images of U/W action such as this photo of a school of cruising jacks.



The Nikonos V also takes sharp photos above the water. This photo of a dive boat was taken with the camera set for automatic exposure and using the 28mm topside lens. Note the fantastic depth of field: Everything from the water in the foreground to the distant highrise hotels is in focus. The Nikonos V offers a compact, rugged body for easy handling and durability.



Nikonos-V. Buy now. The extras are free.

Now's the best time ever to buy the world's best underwater camera system—Nikonos-V—the only one to bring you the advanced features of Through-The-Lens flash metering for optimum exposures every time, a large, easy-to-use viewfinder, the option of complete manual control and the most accurate built-in light meter ever designed for underwater use.

Buy now and choose from among hundreds of dollars worth of free gifts—extras you'd probably want to buy anyway.

Buy a Nikonos-V body now and get your choice of either a deluxe dry case or an extension tube set:

Deluxe Nikonos Dry Case.

Completely air and water tight. Super strong rigid shell with stainless steel pins. Choice of Nikonos Orange or Silver-Grey finish. $110 value.

Extension Tube Set.

An absolute must for clear, sharp underwater macro photographs. Set allows reproduction ratios of 1:2, 1:1, 2:1. $144 value.

Buy an SB-102 or SB-103 Speedlight and get a Super QXL3 dive light free. The powerful SB-102 and compact SB-103 offers optimum exposure accuracy plus convenience.

Super QXL3 Dive Light with Holder.

Powerful, yet small enough to go on every dive. Universal holder attaches light to strobe. For searching ledges, revealing hidden colors, aiming strobe. $42 value.

The camera system that brought advanced automation to underwater photography now brings you its biggest bonus deals ever. Offer expires March 31, 1987. See your Nikonos dealer for details now.

Nikon®
We take the world's greatest pictures.®

Nikon One year membership in the Nikon USA Club is free with every purchase when you submit the Nikon USA Club application.
For further information write: Nikon Consumer Relations, Dept. N58, Nikon Inc., 19601 Hamilton Ave., Torrance, CA 90502-1309. © 1987 Nikon Inc.

SPORTS SUITS
OF AUSTRALIA

The Original Is Still The Best!

Check the seams. Reinforced stitching for diving. Guaranteed 100% not to fall apart, a guarantee you won't find in a regular exercise or aerobics suit.

Material: Highest grade LYCRA. Long life without becoming "baggy" or "running."

The original "S.S. of A" means your suit was designed exclusively for diving. Not running, bicycling or aerobics.

Color & sizes: Six exciting color combinations and eight sizes to ensure comfort and that "perfect" fit.



Compare Sports Suits with any LYCRA suit on the market! You'll agree, the original Sports Suit is still the best!

SPORTS SUITS of Australia designed the original, revolutionary, warm-water dive suit. Unlike aerobic suits and cheap imitations, the ORIGINAL (Mark I and Mark II) is built tough to withstand the rigors of diving, with highest quality design, materials and workmanship.

SPORTS SUITS OF AUSTRALIA

See us at DEMA booths 1508 & 1510

CONTACT YOUR LOCAL AUTHORIZED S.S. OF A. DEALER OR:
SPORTS SUITS OF AUSTRALIA (USA) INC.
P.O. BOX 2827, SEPULVEDA, CA 91406
(818) 376-0402

Diving News From Down Under

Wreck of The SS Yongala

TEXT AND PHOTOGRAPHY BY GERI MURPHY

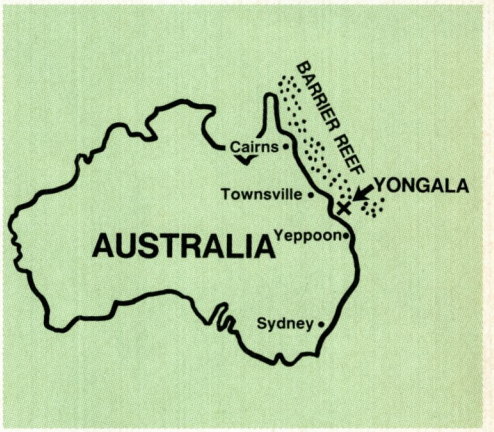
The *Yongala* is considered the most outstanding wreck dive in Australia and perhaps the best in all of the South Pacific. The concentration of fish life above and around this sunken vessel is incredible. The ocean around the wreck is often layered with schools of different fish species, including barracuda, jacks, cobia and rays. Scattered among the uniform schools are sea turtles, potato cod, sea snakes and giant Queensland grouper (jewfish). The wreck is like a giant aquarium without walls.

The SS *Yongala* was once a 350 foot cargo/passenger steamship that sailed along the coast of Australia in the early 1900s. At the time of her sinking, the ship was carrying timber, bricks, tires and bottled goods as well as 120 passengers. On March 24, 1911 the ill-fated vessel vanished during a cyclone. The only trace ever found was a race horse named Moonshine that washed up on an Australian beach days after the ship vanished. The question of how or why the *Yongala* sank has never been satisfactorily answered. For years she was known as the "Ghost Ship of the Queensland Coast." For almost 35 years the location of the *Yongala* remained hidden, until discovered by a minesweeper in 1945 while it was clearing the coastal shipping lanes.

Today, the location of the *Yongala* is known only to a handful of dive boat skippers and she is still a difficult wreck to find. She lies some 50 miles southeast of Townsville, approximately 11 miles offshore. This difficult access has helped preserve both the wreck and the teeming fish life that surrounds it. In 1981 the *Yongala* was declared an Historic Wreck by the Australian government. A brass name plate declaring the shipwreck's protection was placed on the *Yongala* by Ron and Valerie Taylor while they were filming a documentary in 1982.

Today, the *Yongala* rests at a 45 degree angle on its starboard side in 80 feet of water. The hull is totally intact although the ship's rigging is broken away. At certain times of the year the water around the *Yongala* can be crystal clear, with 150 foot visibility. At other times, visibility can drop to 50 feet and surface conditions can be rough. Although the ship lies inside the Great Barrier Reef, there are many miles of open ocean surrounding it.

Upon approaching the *Yongala*, dive boat skippers and passengers frequently see turtles and sea snakes swimming on the surface. These are clues to her location. Beneath the surface, at 20 to 30 feet, there is often a school of about 100 Pacific barracuda that slowly circles above the wreck. Below the barracuda is a large school of stately batfish that swims just above the wreck like a group of soldiers on parade. The wreck itself is covered with a heavy growth of soft corals, seafans, hard corals and other marine growth. There are small groups of jacks, potato cod, barramundi, flowery cod, coral trout and other medium sized fish in just about every crevice and overhang.



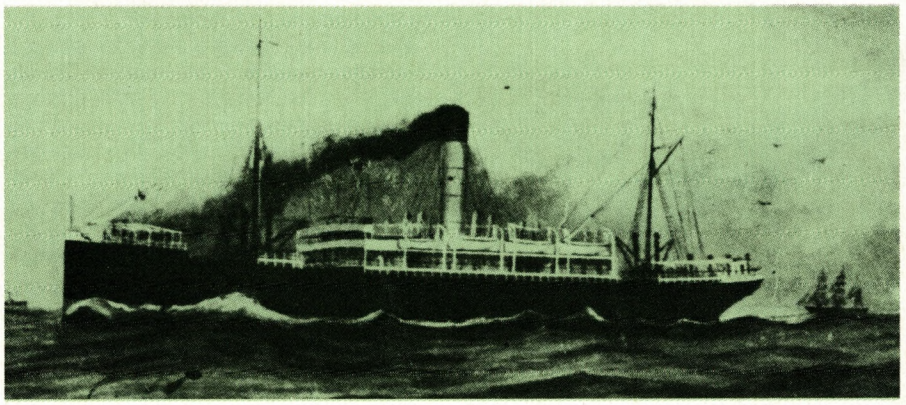
For nearly 35 years, the location of the *Yongala* remained unknown. She was discovered in 1945 about 50 miles southeast of Townsville, nearly 11 miles offshore.

Cruising around the outside of the ship are a dozen or more giant yellowtail jacks that must weigh 60 to 80 pounds each. Still another unusual sight is a school of 30 or more cobia that cruises around the wreck. These fascinating fish are approximately four feet long and look something like a shark from afar. The biggest fish on the wreck are the Queensland groupers. There are six of these great fish. The two largest are estimated to weigh more than 500 pounds and measure seven feet in length. One of the most extraordinary encounters on the *Yongala* was a sawfish, photographed by Carl Roessler in November 1985. A dive on the *Yongala* is an experience that cannot be duplicated anywhere else in the world.

The *Yongala* wreck is regularly visited by Australia's top live-aboard dive boats such as the *Coralita*, *Reef Explorer*, *Super Sport* and *Water Sport*.

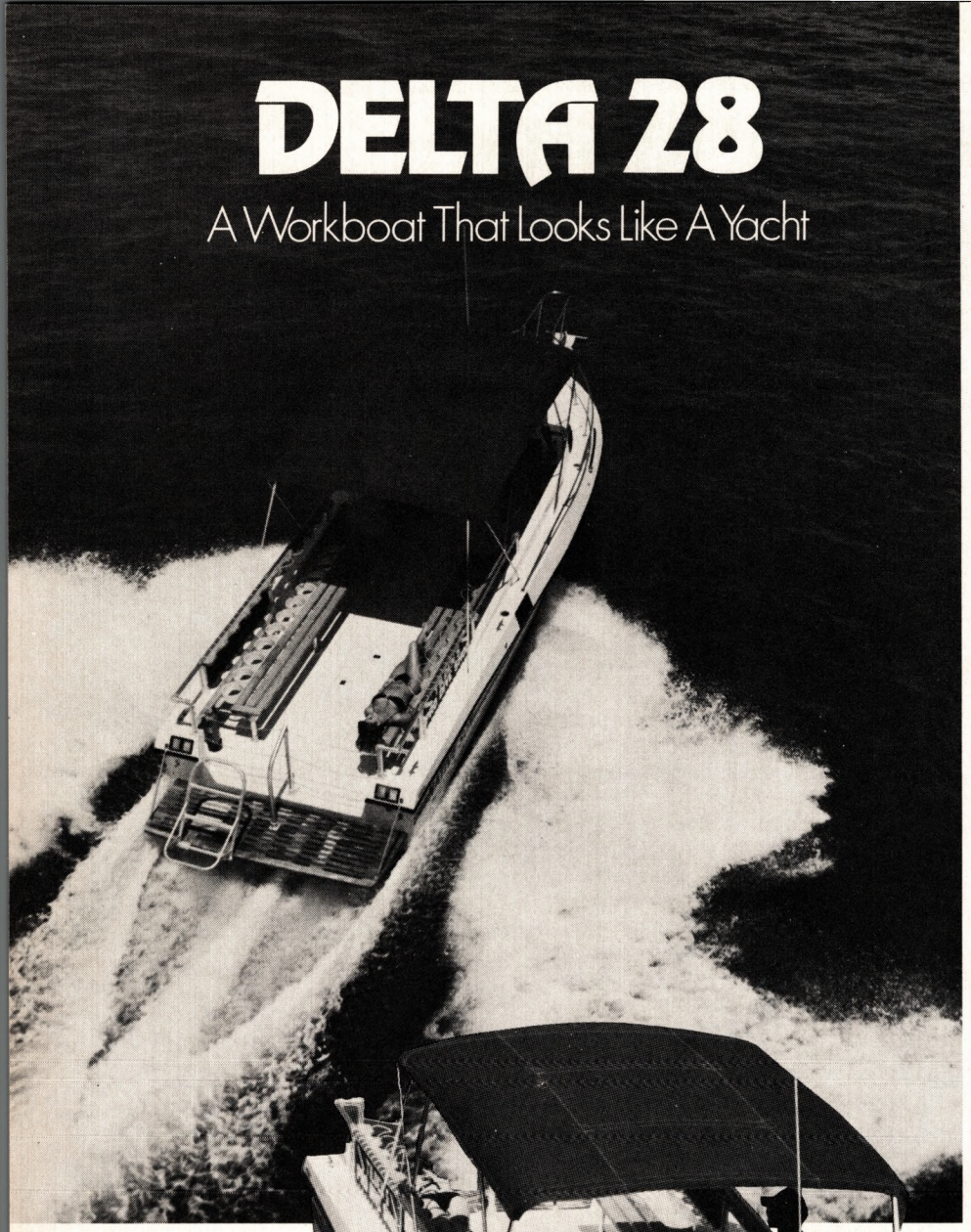
For more information about scheduled visits to the *Yongala* wreck, contact Dive In Australia, 50 Francisco St., Suite 205, San Francisco, CA 94133 or telephone (415) 421-5588.

A sketch of the *Yongala* before sinking. She was a 350 foot cargo/passenger steamer.

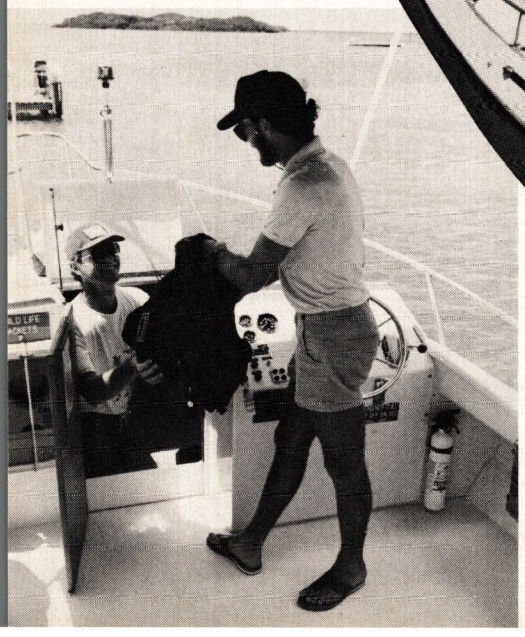


DELTA 28

A Workboat That Looks Like A Yacht



TEXT AND PHOTOGRAPHY BY STEVE LUCAS





The Delta 28 is designed to be used as both a commercial and a privately owned dive boat. It features a modified V-hull, which cuts through the waves, and a relatively flat stern for stability at anchor. The 28 is available in two models. The Inboard Open, shown here, has a smaller cabin, but is certified for three more passengers.

If you've ever dived Cayman, Cozumel or Florida's lower east coast or Keys, chances are you have seen or dived from a Delta boat. Specifically designed for charter dive and workboat applications, Delta's 36 and 46 foot models are two of the most popular designs used by Caribbean and Florida operators. Known for its smooth ride and economical operation, the Delta 28 model is a recent addition to the fleet.

Built at Cape Canaveral, Florida near the Kennedy Space Center, the 28 is designed to be used both as a commercial and privately owned dive boat. Fully Coast Guard certified, the boat is approved for more passengers than any other in its size range. Used as a private boat, it has more than enough room to keep a group of four to eight divers comfortable and happy.

With an overall length of 28′1.5″, its 32 degree, forward deadrise, modified V-hull design sweeps back to a relatively flat 12 degrees aft. The design makes it a very seaworthy craft. The V-hull lets the Delta cut the waves while the flatness aft makes it stable at anchor. If you don't tolerate rock and roll seas well, you'll quickly appreciate the boat's stability.

Because it draws only 30 inches, the Delta 28 is also capable of working on relatively shallow reefs. At 9′6″, the boat is very beamy for a 28 footer. This width, combined with the hull design, adds to the boat's stable ride and comfort.

The boat is available in two basic models with the same hull. Either can be finished to your exact specifications. The hulls are hand-laid fiberglass and Delta is confident you'll never have problems with them. As a result, the boat carries a lifetime hull warranty to the original owner.

The 28 Convertible has a relatively large step-down cabin and is CG certified for 12 passengers and a crew of two. The Inboard Open (shown in our photos) has less cabin space but is certified for three additional passengers.

The Convertible comes with a stand-up head (marine toilet) on the starboard side of the cabin. Inside is a cabinet, teak tissue holder and vanity with sink. Drawers are provided on the port side as well. Of the two, this boat is more appropriate for private ownership.

With a small forward cabin for storage of safety equipment, the Inboard Open's cockpit is a full 19 feet long. With enough room inside the cabin for it to be used as a stand-up changing area, the boat can also be equipped with a head (non-standard). It is the more likely candidate for commercial dive operators.

Both boats come equipped with seating and tank racks for their certified number of passengers. A heavy duty teak dive platform, with ladder, is included.

With 150 gallons of fuel onboard, the running time for its inboard diesel engine is substantial. Maintained through a re-

(Continued on Page 147)

Tools for the underwater explorer.

Helix has the tools for the underwater explorer, whether professional or amateur. Our staff of diver/photographers knows the equipment and supplies used below the water line and can help you make the best choice. Before you dive, call us. Helix makes the dive more rewarding.



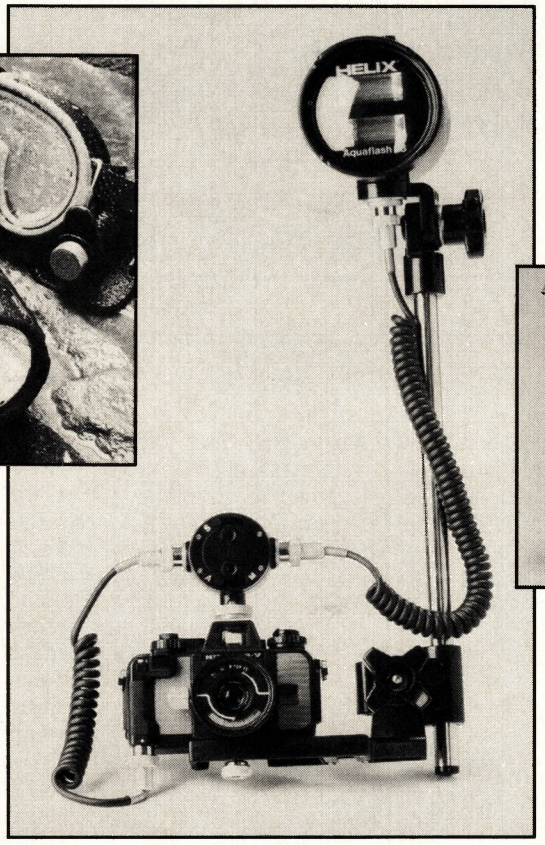
With the Toshiba K-133 underwater flashlight, you'll never be left in the dark. Made of shock-resistant ABS resin, the K-133 is waterproof to 165 feet. Includes a unique sliding switch and battery case marked at 1-3/16" intervals, making it an ideal measuring tool. The K-133 has a bright Tungsten Halogen bulb within a navy blue case. Utilizes 4 "D" cell batteries (not included).

Helix sponsors frequent photo dive trips and seminars. For information call: 1-800-33/HELIX.

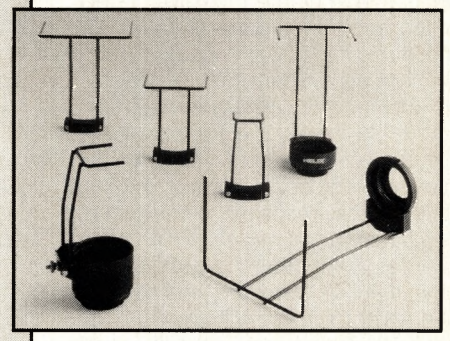
Bonaire II
Feb. 7–Feb. 14, 1987

Philippines
March 22–April 5, 1987

Cayman Islands
July 4–July 11, 1987



There are many underwater strobes available at a wide range of prices. But no other flash unit, no matter what the price, offers as many features as our Aquaflash units. Dedicated for the Nikonos IV and V, the Aquaflash 28TTL and 28 feature automatic and manual exposure control down to 165 feet, wide-angle coverage up to 15mm lens with optional diffuser and built-in sensor. In addition, the 28TTL offers convenient TTL auto exposure control with the Nikonos V. Both strobes come complete with everything necessary to take the plunge. And, they're backed by our comprehensive Helix 2-year limited service plan, the most complete warranty in the industry!



Our unique extension tube system is designed to help you build the most versatile set of tubes and framers available. With just 3 basic tubes, you can develop up to 7 different tube, framer, and lens combinations for your 35mm or 28mm Nikonos lenses without having to buy 7 different tubes and framers! You can even use the Helix Extension Tube System to expand a basic Subsea or Nikonos extension tube set.

These and other outstanding Helix underwater products are available at professional dive shops throughout the world.

Dealer inquiries welcome!

Helix Worldwide
Telex #701713 answer back: HELIX CGO UD

HELIX®

310 South Racine Avenue, Chicago, IL 60607
312/421-6000

Live outside of Illinois? Call our underwater department toll free: 1-800-33/HELIX.

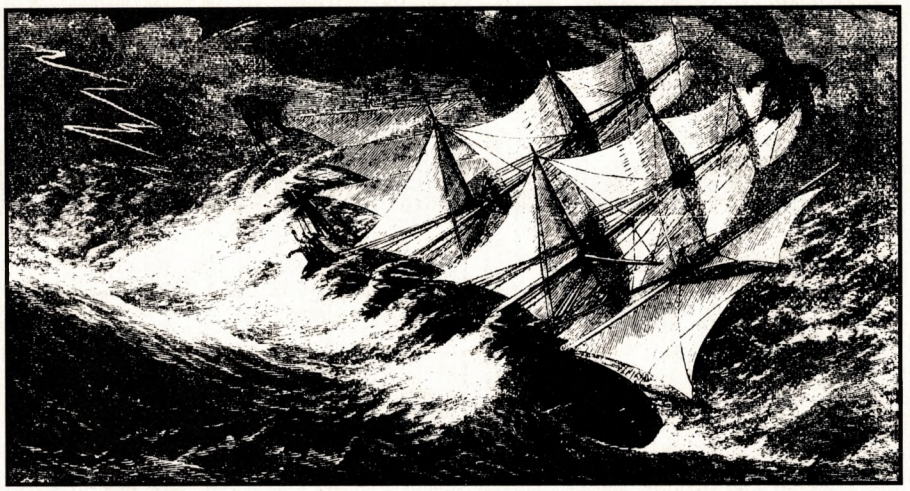
Please send me a FREE copy of the current Helix Underwater Catalog and Booklist ($2.00 value).

Name _____

Address _____

City, State, Zip _____

SD0187



Wreck Facts

BY ELLSWORTH BOYD

Carl Panzarella, a Baltimore native who lives and works in Jupiter, Florida, asks how the *Pride of Baltimore* sank. The 137 foot handcrafted wooden schooner that served as the city's goodwill ambassador sank eight months ago while 240 miles north of Puerto Rico. The captain and three crew members died, while eight survivors—who drifted in a raft at least 150 miles in five days—were rescued by a Norwegian tanker. For nine years the vessel had weathered storms off Cape Hatteras and the coast of California, but the clipper couldn't survive a freak blast of wind that rolled it over.

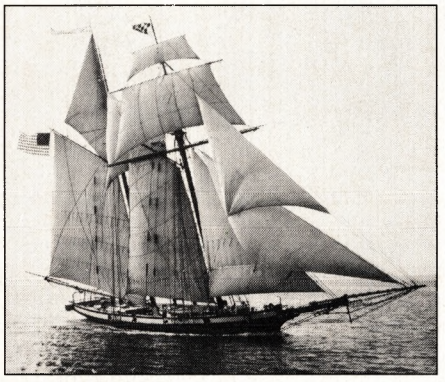
An investigation revealed the *Pride* was struck and sunk by a microburst, a sharp downdraft that hits the surface of water and fans out at speeds as high as 200 miles per hour. Some mariners call them line squalls. The phenomenon occurs so suddenly and in such a small area that no one could have warned the ship's crew. A photograph from a weather satellite revealed evidence of an unusual burst of wind in the area where the *Pride* sank.

A magnificent replica of an 1812 Baltimore schooner, the *Pride*'s authenticity made her vulnerable. Her three canvas covered hatches, including the main hatch that was amidship, were secured but not watertight. When she rolled on her port side, torrents of water poured through the hatch covers and the ship sank in a few minutes. Although the *Pride* had a keel, it was just a shallow backbone that ran the length of the ship at the bottom of the hull. Modern sailing vessels have a heavy fin that extends below the hull and helps keep them upright under most sailing conditions.

Harry Cooper, head of Sharkhunters, an organization dedicated to locating and preserving history and artifacts of World War II German U-boats, is enthused about his first annual convention. The gathering will be held February 1-5 at Howard Johnson's Motor Lodge, Key Largo, Florida. Some of the featured speakers will include former U-boat commanders, U-boat crewmen and American submariners. There will be a dive on the SS *Benwood*, a freighter sunk by a U-boat in World War II; documentary films; and a swap meet. For details write to Harry Cooper, P.O. Box 537, Fox Lake, IL 60020 or call (312) 587-7499.

Michael Barr, Memphis, Tennessee shares some interesting research on the twin sidewheel steamship, *Sultana*. Michael writes: "The 260 foot long, 42 foot wide steamer left Memphis April 27, 1865 and was seven miles upstream on the Mississippi when its boilers exploded. She was extremely overloaded and it is estimated more than 1,000 lives were lost. The ship burned to the water level and sank on a bar near Mound City, Arkansas. Today, waters have shifted and the site of the *Sultana* is three miles west of the river under land owned by A.P. Dracos in 1955." Michael would like to exchange information with other divers on wrecks in the Tennessee and Arkansas areas. Contact him at 1696 Belvedere Street, Memphis, TN 38104.

For years, Ontario divers have been driving long distances to explore the wrecks of Tobermory, but according to



Pride of Baltimore

diving instructor Bill Knudson, there are good wrecks just outside Toronto Harbor. Now that the wrecks are protected by Canadian maritime law, Knudson and others are revealing some of their secret sites. Don MacIntyre and Harold Riley first discovered the *Sligo* in 60 feet on the bottom of Humber Bay. A square rigger carrying 500 tons of limestone, it sank in 1918. Steve Richardson, captain of the tugboat *Tracy M*, found another ship on the bottom of Humber Bay—a 120 foot long unidentified schooner. Another wreck, the *Lyman M. Davis*, is an interesting ship that sank in 1934 during Toronto's 100th birthday celebration. Rockets and assorted fireworks soared from her decks, which caught fire, ignited kerosene and blew away part of the stern. More than 100,000 people watched the *Lyman M. Davis*, a 61 year old vessel, sink to her 125 foot grave.

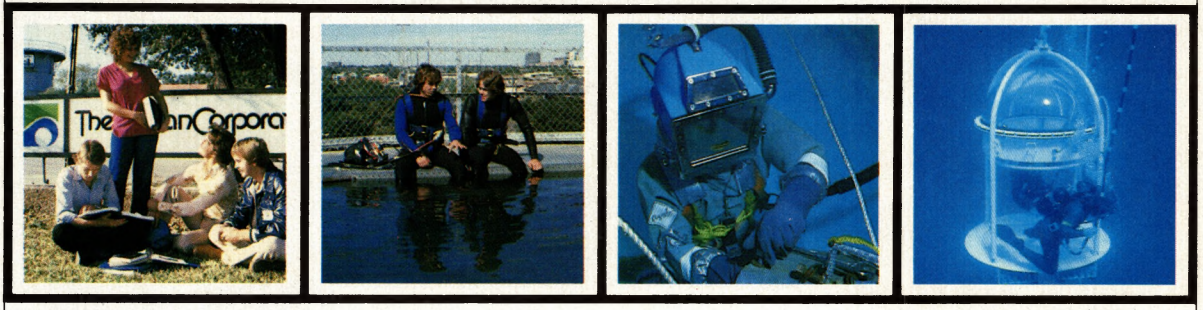
Robert Hothan is a member of the New York City Police Department Scuba Squad. Called out for a variety of underwater emergencies and investigations in New York and its suburbs, the dive team has searched for sunken cars, trucks, guns, bodies and drugs. Robert has dived New York Harbor and is curious about possible shipwrecks there. If you have any information on wrecks in the harbor, contact Robert at 513 Lowell Avenue, New Hyde Park, NY 11040.

Bill Kerber, Staten Island, New York is also a New York City police officer. One of the members of his club, Staten Island Sport Divers, has a copy of *Perils of the Port of New York*, the book Vince Kostolni, Flushing, New York, was searching for. Bill has Loran numbers for many wrecks off New York and New Jersey that he is willing to share with other wreck divers. If you're interested, write to Bill Kerber, P.O. Box 62, Eltenville Station, Staten Island, NY 10312.

Scientists are exploring Lake Superior and Lake Huron to learn more about the bottoms of the world's largest bodies of fresh water. Although the lakes supply drinking water for 26 million people, very little is known about their bottoms. Using the Johnson *Sea Link II*, a $1.5 million submersible with a clear bubble bow, four scientists can observe and record data to depths of one-half mile. The battery powered sub is equipped with cameras, lights and a mechanical arm that can lift up to 100 pounds. It also retrieves samples using a vacuum that sucks materials off the beds of the lakes for further

(Continued on Page 135)

Want to work in the diving industry? Come to the world's best commercial diving school...



Photos by LARRY CUSHMAN

Come to Houston!

About a third of the world's entry-level professional divers are trained at the Ocean Corporation in Houston. We're the biggest and the best...and the commercial diving companies in our area know it. Last year more than 50 different diving companies hired our people.

If you are interested in becoming a professional diver, remember these facts about the Ocean Corporation.

We teach everything you need to know to immediately go to work.

We run complete night courses as well as our regular day classes.

We have the largest full-time training staff of any diving school...anywhere.

Most of our instructors are active inshore and offshore commercial divers.

We pioneered bell diver training, in-house welding training, ASNT-level inspection diver training and Diver Medic certification.

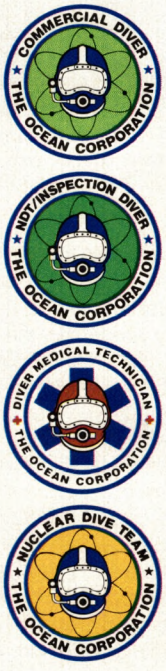
We have our own diving division which performs specialized industrial diving operations, such as underwater NDT inspection and nuclear powerplant repair work.

We have a fine climate and good living conditions. Nearby apartment sharing and part-time jobs are readily available.

We'll help you get your first diving job.

Remember, all commercial diving schools are not alike. Check them out. Visit the school if you can. Look for real commercial diving professionalism and reputation, adequate facilities and equipment, experienced instructor staff, decent housing and living conditions, and, probably most important to you, ask them how they plan to help you get your first job in the commercial diving industry.

If you want to be a professional diver, contact our Admissions Department. You'll be glad you did.



CALL TOLL FREE: 1-(800) 321-0298

(TEXAS RESIDENTS CALL (713) 661-0033 COLLECT)

(ASK ABOUT TUITION DISCOUNTS FOR CERTIFIED DIVERS AND INSTRUCTORS)

The Ocean Corporation

5709 Glenmont Houston, Texas 77081

Pan Fried Yellowtail Snapper

TEXT AND PHOTOGRAPHY BY GREG JOHNSTON

Many underwater activities offer similar opportunities for enjoyment. Much like the underwater photographer who enjoys taking pictures and viewing them later, is the spearfisherman—there is the joy of the hunt, and later, the pleasure of eating your catch.

One of the most common fish in tropical seas is the yellowtail snapper (*Ocyurus chrysurus*). The snapper family includes a wide variety of members. However, only a few are regarded as good eating. Some, like the dog snapper or the cubera snapper, the largest of this family, may be poisonous. The mutton snapper is a good eating fish. It can be easily distinguished by the vivid blue spots around the eye, a dark spot on the back and black edging around the tail. The gray snapper is also very good eating. This fish can be found in the fringing mangrove creeks or on the open reef. The lane snapper, another food fish, is often found schooling under ledges and mixed with other similar reef fish. The red snapper is probably the best known, it can usually be found on the menu of most fine seafood restaurants. However, do not confuse the red snapper with the West Coast red snapper. The West Coast snapper is equally as delicious, but a member of the rockfish family.

Of all the snapper family, the yellowtail is the most handsome. A bright yellow stripe starts at the nose and runs through the eye to the tail. Above the lateral stripe, yellow dots mark a blue background. On the lower sides and belly, narrow vertical yellow stripes seem to streamline the fish from the pectoral fin to the tail. The fins and the exceptionally wide forked tail are deep golden yellow, hence its common name. The yellowtail snapper is much more slender than other members of its family.

Yellowtails are commonly found in the Florida Keys, Bahamas and the Caribbean. Although occasionally found alone, they are more often found consorting with their own kind over reefs and along the lower coastal areas of Florida. Sometimes attaining a length of 30 inches, the yellowtail snapper is ranked a delicacy.





The yellowtail snapper is adaptable to a variety of recipes, cooked whole or filleted. Top: Delicious Yellowtail Parmesan.

YELLOWTAIL AU PARMESAN

2 lbs. yellowtail snapper fillets
¾ C bread crumbs or all purpose flour
2 green peppers, chopped
1 onion, thinly sliced
3 tsp. butter or margarine
1 egg and milk mixture
¼ tsp. black pepper/paprika
½ tsp. salt (optional)
Grated parmesan cheese
Chopped mushrooms

Mix the grated cheese with the bread crumbs, salt, pepper/paprika. Dip the fish in the egg and milk mixture, then in the coating. Fry until deep golden brown. Garnish with sautéed peppers, onions and mushrooms. Makes four servings.

GINGER FRIED YELLOWTAIL

Ginger Sauce:
½ C white wine vinegar
1 T water
1 tsp. ginger root, shredded
¼ tsp. salt
2-3 T cream sherry or sweet rice wine

Combine the vinegar, water, shredded ginger root and salt. Stir in the cream sherry or sweet rice wine. Heat until near boiling and serve over the fish.

2 whole yellowtail snapper
1 C bread crumbs or all purpose flour
1 egg and milk mixture
½ tsp. black pepper/paprika

Fry the whole yellowtail until golden brown, remove the fish and garnish with whole parsley.

The flesh is fine, white and flaky, and has a very mild and tender taste.

Once the fish is brought aboard, it is important to ice it immediately. This not only preserves the freshness of the meat, but also makes cleaning the fish easier.

If the thought of pan frying conjures up thoughts of fried fish sizzling over the glowing coals of a campfire, then you are already familiar with one form of frying. Hemingway once wrote, "a pan of fried fish can't be bettered."

Yellowtail snapper is remarkably adaptable, practical and gastronomically pleasing. There are several basic cooking techniques: baking, barbecuing, broiling, sautéing, deep frying, poaching, oven or pan frying—and a multitude of variations in between. Adding some sim-

(Continued on Page 146)

Treat Yourself

or someone else special to 4 quarterly 90 minute issues of SEA FANS, the only "Magazine-On-Videotape" for divers.

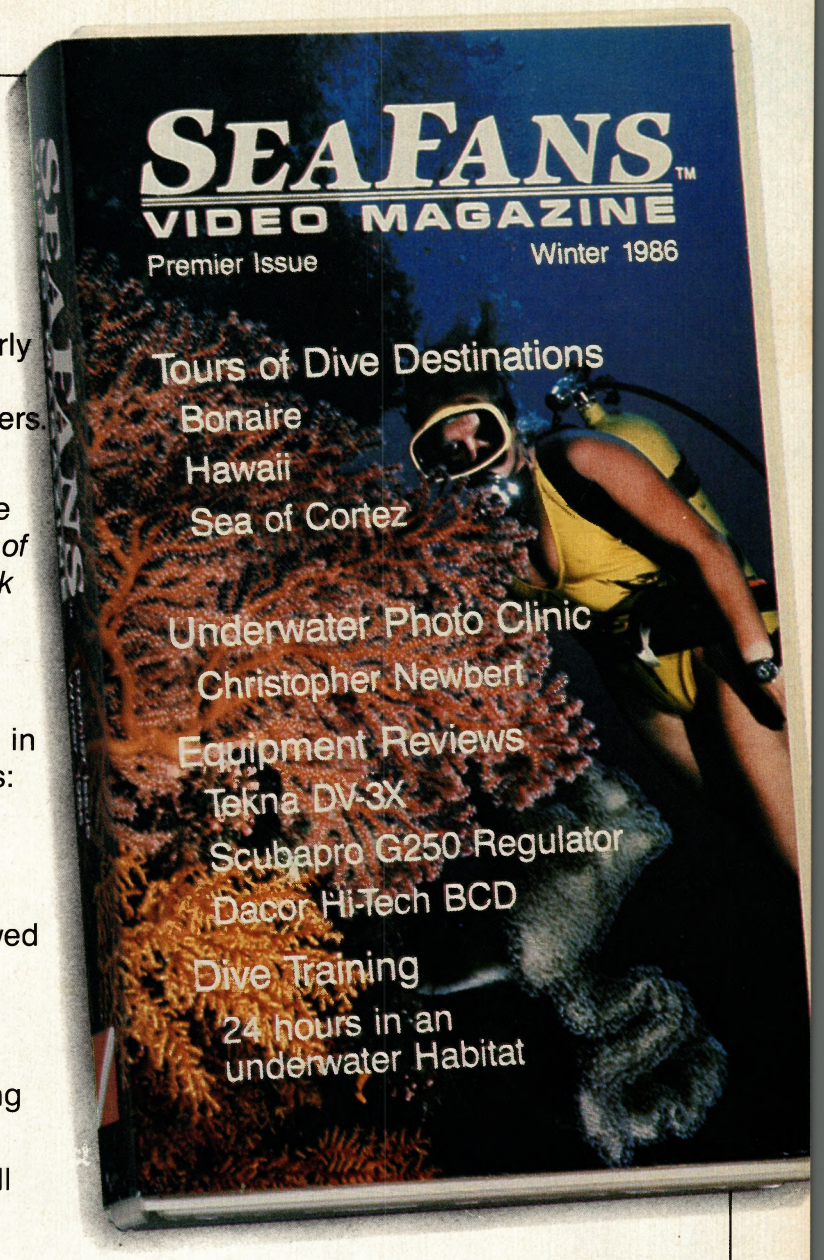
Visit by video the best dive destinations world-wide! This year we take you to: *Bonaire* • *Hawaii* • *Sea of Cortez* • *Palau* • *Little Cayman* • *Truk Lagoon* • *Red Sea* • *Papua/New Guinea* • *Bahamas* • *Roatan* • *Fiji* • *Belize* • *Maldives* • and more.

Learn from renowned photographers in our regular Underwater Photo Clinics: *Chris Newbert* • *Howard Hall* • *Carl Roessler* • *Stan Waterman* • and others.

See the latest dive equipment reviewed in the water and the newest developments in dive technique and safety.

Meet exotic marine life and interesting diving personalities.

Experience more of Planet Ocean all year long on your home VCR.





Free Trial. An annual subscription of 4 quarterly issues is just $119.95 - you save 25% off the single issue price. Send no money...we'll bill you later. Or, pick up the Premier Issue at leading Dive Shops to preview at home. If you don't find SEA FANS there, order from us for $39.95.

Risk free. If you are not completely satisfied, return your copy to us within 15 days for a full refund!

Now, aren't you ready to be a Sea Fan?

To order fill out the attached card or call toll free today:

800-628-2828 ext. 908

SEAFANS™
VIDEO MAGAZINE

999 18th Street Suite 1000
Denver, Colorado 80202

Our latest release.

Click. It's on.
Click. It's off.

Presenting the Liberator,™ Tabata's hot new quick-release BCJ. Just a squeeze on the sides of the Coast Guard approved buckles is all it takes to detach the Liberator and remove it. The only problem is that the Liberator's padded backpack, padded waistband, adjustable straps and convenient Velcro™ closures make it so comfortable, you may not want to take it off. And like all rugged Tabata BCJ's, the Liberator has new features like an over pressure exhaust valve, auto inflator, and detachable CO_2 detonator.

The Liberator. You'll get off on it.



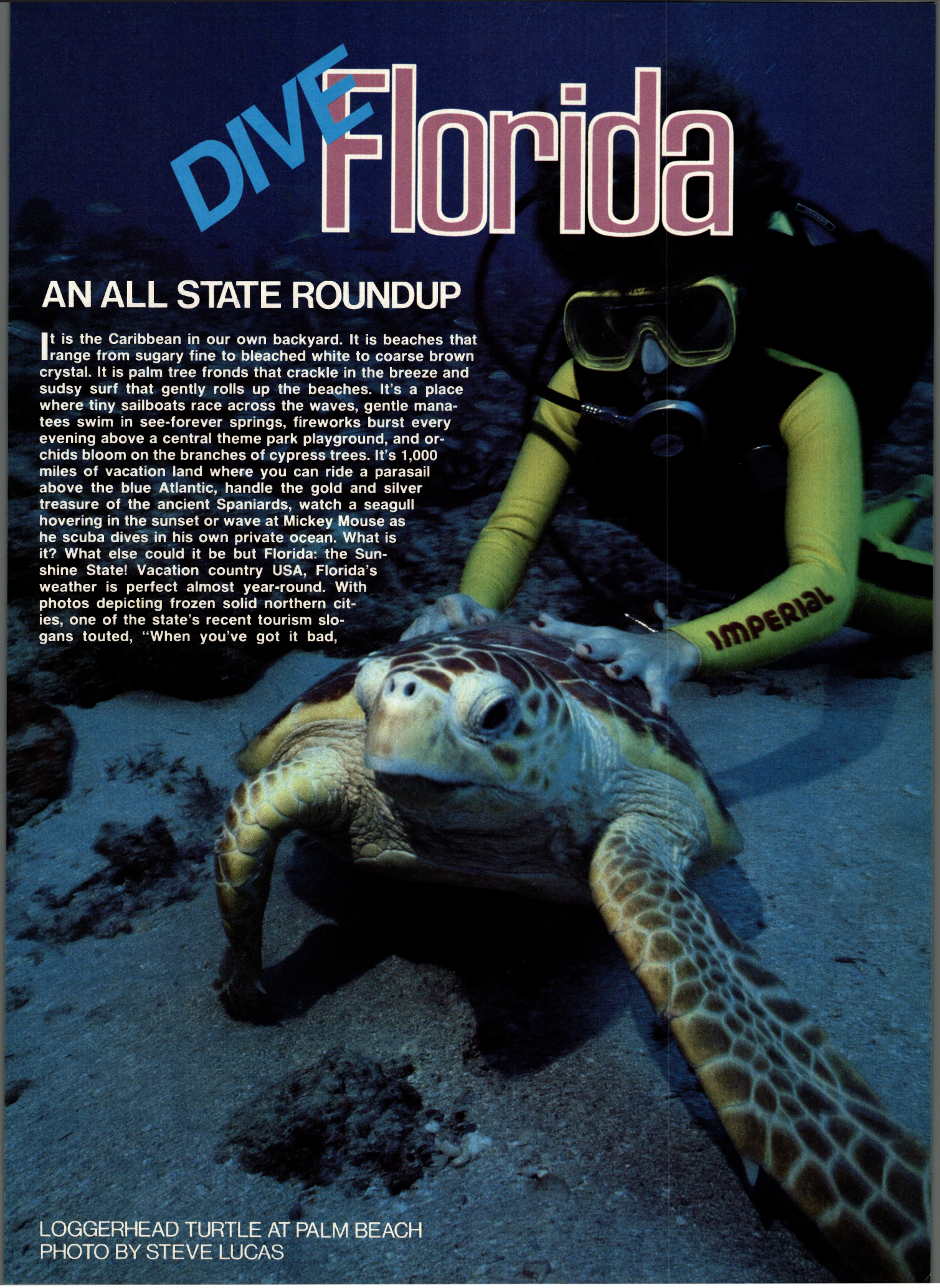
Tabata

2380 MIRA MAR AVENUE, LONG BEACH BUSINESS CENTER, LONG BEACH, CA 90815. FAX (213) 498-1390. TABATA USA, INC., A SUBSIDIARY OF TABATA CO., LTD., JAPAN.

DIVE Florida

AN ALL STATE ROUNDUP

It is the Caribbean in our own backyard. It is beaches that range from sugary fine to bleached white to coarse brown crystal. It is palm tree fronds that crackle in the breeze and sudsy surf that gently rolls up the beaches. It's a place where tiny sailboats race across the waves, gentle manatees swim in see-forever springs, fireworks burst every evening above a central theme park playground, and orchids bloom on the branches of cypress trees. It's 1,000 miles of vacation land where you can ride a parasail above the blue Atlantic, handle the gold and silver treasure of the ancient Spaniards, watch a seagull hovering in the sunset or wave at Mickey Mouse as he scuba dives in his own private ocean. What is it? What else could it be but Florida: the Sunshine State! Vacation country USA, Florida's weather is perfect almost year-round. With photos depicting frozen solid northern cities, one of the state's recent tourism slogans touted, "When you've got it bad,



LOGGERHEAD TURTLE AT PALM BEACH
PHOTO BY STEVE LUCAS

Florida

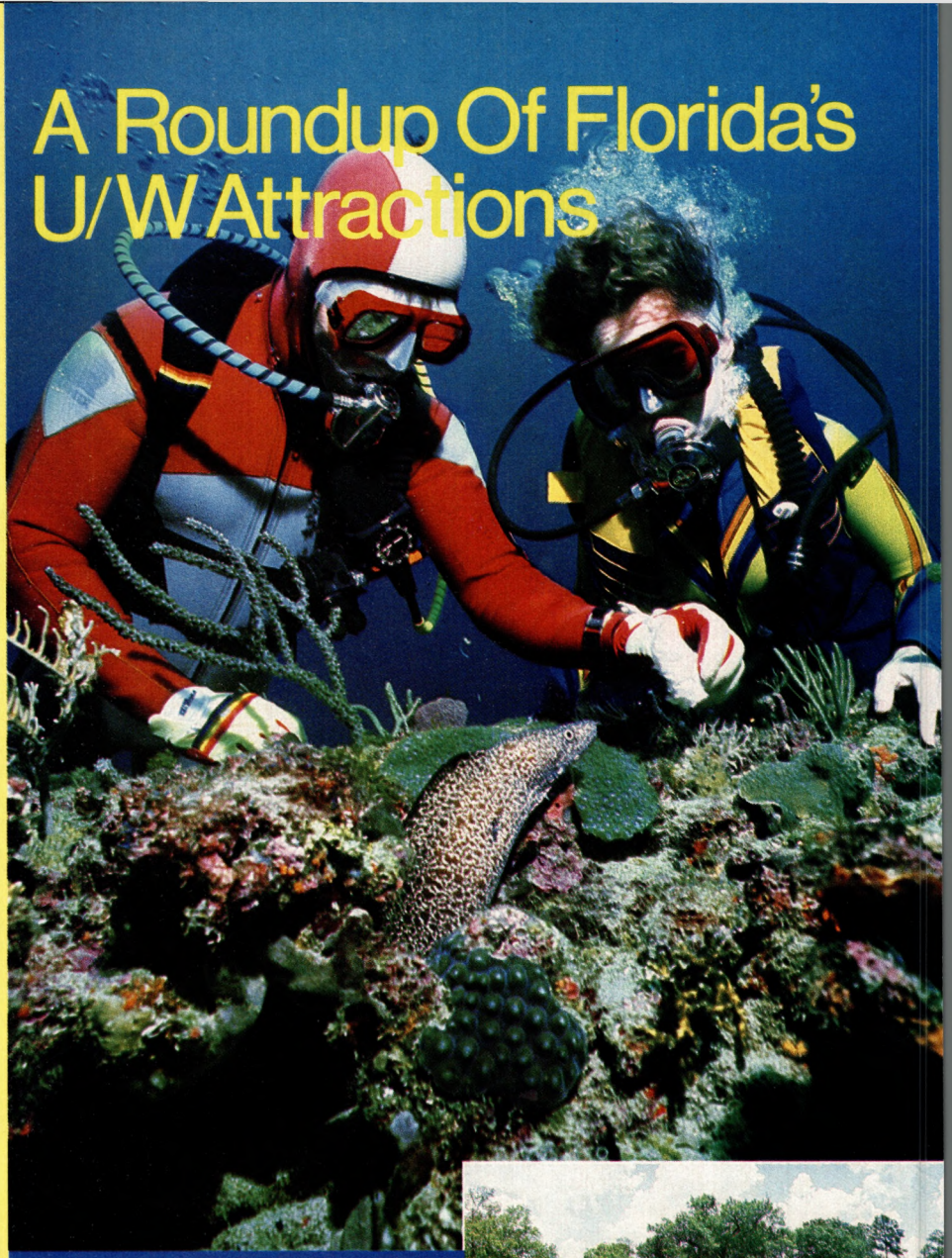
A Roundup Of Florida's U/W Attractions

TEXT AND PHOTOGRAPHY BY STEVE LUCAS

we've got it good!'' And, Florida really does have it good.

When it's 15°F below zero and people are shivering in Minneapolis, Chicago or New York, they'll be out scuba diving in sunny Florida. Not just in the Keys, but from Destin and Panama City up on the Emerald Coast down to reefs and shipwrecks of Palm Beach, Fort Lauderdale and Miami, you'll find an enormous variety of sites and types of diving. From its three oceans (counting Mickey's), to the unbelievably clear, 72°F year-round waters of its freshwater springs, Florida has something to excite everyone.

If you don't dive, come along anyway. You just can't help having fun. With the world's greatest variety of theme parks and shows, Florida will keep you happy. It is the one place where it is difficult not to find something to see and do while your friends are out underwater exploring a reef or wreck. So let's get going. There's a lot to see!





With weather that is almost perfect year-round, white sand beaches, crystal clear springs, nature preserves and the world's greatest variety of theme parks, Florida is known as vacation country USA. Underwater attractions run from rivers to reefs to wrecks and offer everything from manatees to colorful tropicals to gamefish. Above: Moray feeding at Jupiter High Ledge. Right: Check-out dive, Troy Springs.

EMERALD COAST

Just inside the state's northern border, all along the Gulf of Mexico, is one of Florida's most unexpected dive destinations. Each year thousands of divers drive along I-10, heading for the southern part of the state. Many never know they could start their diving vacation early by just getting off the interstate.

The coastline between Destin and Panama City Beach is one of the most exotic in Florida. The sand is so fine it appears to have been ground to powder and bleached. As white as any you will find anywhere in the world, the beaches are backed by rolling dunes overgrown by sea oats that wave in the breeze.

Primarily a summertime vacation area, it takes on the appearance of a carnival complete with the rides. Roller coasters jerk and zip you up, down and around, and tilt-a-whirls spin you until you are dizzy. At Fort Walton Beach and Panama City Beach you can watch the dolphins, sea lions and parrots perform at the Gulfarium or Gulf World. Or, if you just want to be lazy, spend your entire day sitting beneath a bright blue beach umbrella.

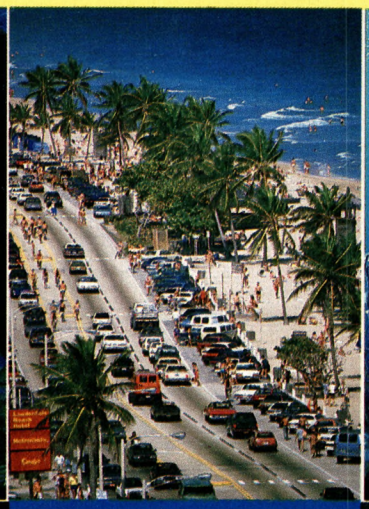
The waters of the Emerald Coast have an unusual quality from which they draw their name. Although sometimes quite transparent, there is almost always a tinge of green instead of the expected blue. The gulf is alive with plankton and nutrients that give the water its color. It is also alive with the same tropical fish you have seen in the Caribbean.

With plenty of food, the coast's rock reefs have large schools of barracuda and amberjack. Baitfish, looking like silvery cigars, swirl above the sponge covered natural and artificial sites. The old limestone breaks are filled with crevices and holes where crustaceans hide. At first colorless in the reduced light caused by the thick plankton, they jump with color when light hits them.

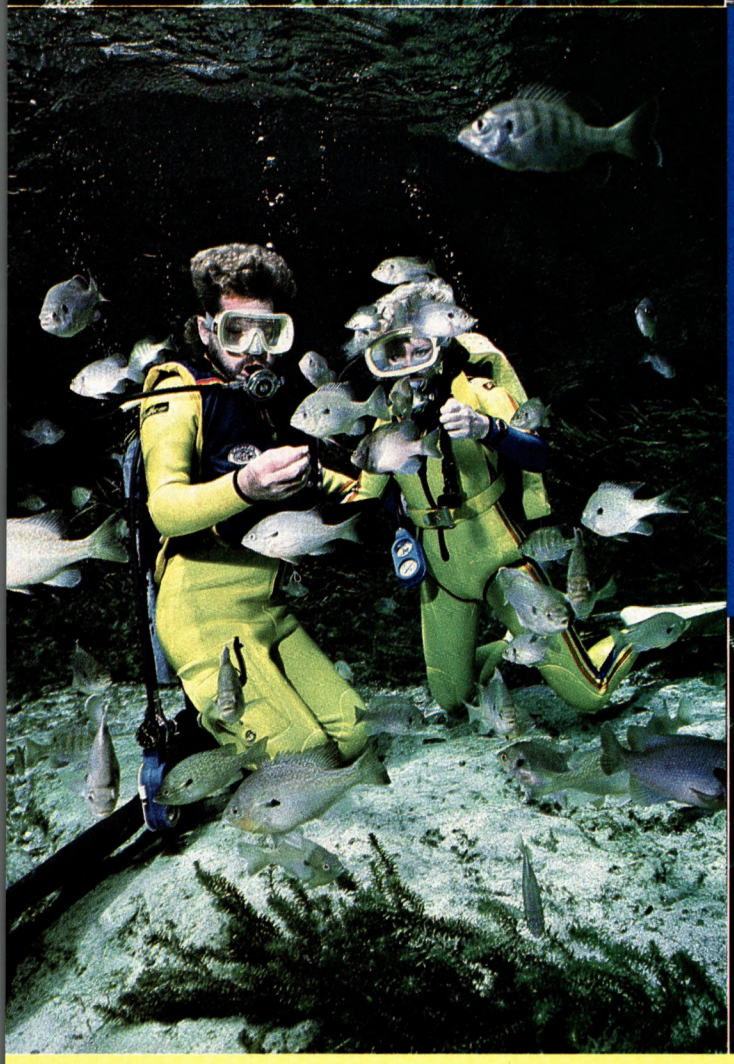
An ideal habitat for fish and invertebrates, the Emerald Coast reefs are also perfect homes for the spiny lobster. Of all the places in the state, they seem best suited for lobster to reach their maximum size. Since there is no commercial lobstering, bugs frequently grow as large as ten pounds or more.

For spearfishing there is no better place in the state. The commercial dive









From Destin and Panama City on the Emerald Coast down to Palm Beach, Fort Lauderdale, Miami and the Keys, divers will find an enormous variety of sites and types of diving—all far from cold northern weather. Florida's dive sites are reached by a fleet of excellent charter boats skippered by knowledgeable captains and backed by full service dive stores. Clockwise from upper left: Janice Lucas with elkhorn coral at the Elbow; Fort Lauderdale strip; *Mercedes* wreck off Fort Lauderdale; lobster at Panama City Beach; gobies at Molasses reef; fish feeding at Ginnie Spring.





operators often encourage divers to bring a polespear or a gun. A large, level shelf that descends so gradually it is dived more than 20 miles from shore, the scattered rock reefs provide an enormous amount of cover for game fish. Grouper, 50 pound amberjack and others are taken on almost every dive. The area is so huge divers will never have any measurable impact on the total population.

Out of the East Pass, between Fort Walton Beach and Destin, the natural reefs come reasonably close to shore. Some are simply patches of limestone on a sandy bottom, others are large and have ledges that rise from the bottom to hang out over the sand. Local operators have charted hundreds of sites, but on almost every trip they note the locations of others that have yet to be dived.

Most of the sites are 80 to 100 feet deep. As a result, it is imperative you keep close track of your time and depth. Others are shallower, but tend to have lower visibilities and fewer life forms.

Timberholes, one of the best and most remote sites, is shaped like an underwater amphitheater with tiers rising as much as 15 feet from the bottom. Just below the surface it is guarded by an army of barracuda. Below them, schools of spadefish parade across the tiers. In between, thousands of baitfish swim in uni-

Dive Florida

...fish splitting suddenly when divers or barracuda approach.

Other sites, such as **White Hill**, **Amberjack Rock**, **The Eighteens**, **Long Reef** and **Frangista** are similar. Shelves rise one to three feet from the bottom. Octopus and bright red cardinalfish often hide beneath the overhangs while blue angels and long finned jackknifefish cruise along the breaks.

Diving near Panama City and Port St. Joe offers an additional thrill: wrecks. More than 20 ships, barges and planes are in divable water. Some, like the tug ***Grey Ghost***, were purposely sunk as artificial reef sites. In just more than 100 feet, the 105 foot long wreck sits upright and leans slightly to one side.

The best wreck in this part of the gulf is the ***Empire Mica***. Down for more than 40 years, she was set afire in the summer of 1942 by the torpedoes of a German U-boat. On the return leg of her first voyage, the British tanker was trying to skirt the coastline of the state, her captain believing no U-boat skipper in his right mind would come into such shallow waters. He was obviously wrong. On June [illegible] she was just 21 miles off Appalachicola near the shoals of Cape San Blas. The water below was barely 100 feet deep when the torpedoes hit. She became a floating bomb and her entire cargo of flammable petroleum exploded. Now her decks rest just 60 feet U/W. Ladders lead down through open hatches and a spare prop lies strapped to her deck. The water is often quite clear and local divers consider her to be their premier dive.

THE SPRINGS

One of Florida's sometimes passed over dive areas is its freshwater springs. Unbelievably clear with visibilities of more than 200 feet not uncommon in many, they are divided into three major regions. The largest concentration of dive operators and resort hotels is clustered around the banks of King's Bay in Crystal River. A greater variety of springs is found 80 to 100 miles to the north between Mayo, Branford and High Springs. In addition, two clear springs are open to divers north of Panama City.

Well away from the Gulf of Mexico and north of Panama City Beach, Morrison and Vortex springs are near Ponce de Leon off I-10. **Morrison** is near the Choctawatchee River and is surrounded by large, lazy cypress trees. With Spanish moss hanging from their branches, they



WHERE TO DIVE IN FLORIDA

1. Fort Walton Beach
2. Destin
3. Panama City
4. Crystal River Area
5. Tampa
6. St. Petersburg
7. Orlando
8. Vero Beach
9. Palm Beach
10. Ft. Lauderdale
11. Miami
12. Key Largo
13. Key West

photo/Paul J. Tzimoulis

Looking for a Good Time in Key Largo?

Climb aboard for the time of your life. Explore the world famous John Pennekamp underwater park from *The Good Time*, our 50' gleaming white, comfortable, and fast dive yacht. Never overcrowded, she has the speed to get you to any part of the park on our half day and full day charters. And unlike most Key Largo boats, we don't limit your diving fun to only one or two nearby reefs.

Dive and snorkel Florida's best living coral formations, or search the remains of a World War II shipwreck. Be dazzled by the majestic underwater statue of Christ of the Abyss, then photograph a Spanish galleon anchor. And there's a lot more!

So if you're looking for a good time, climb aboard. Our *Good Time* is waiting to take you diving!

2 days /1 night, 4 dives $110

Double occupancy. Tanks and weights included.

Call us Toll Free for hotel package information and charters:

Holiday Inn®

(800) 527-DIVE

In Florida: (305) 595-1954

DIVERS DEN

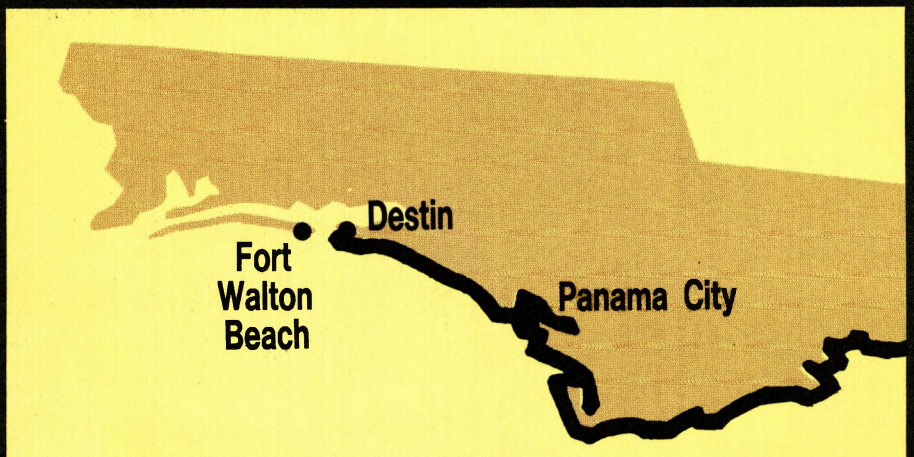
Key Largo	Miami	Fort Lauderdale
Mile Marker 100	12614 N. Kendall Dr.	8280 State Rd. 84
Key Largo, FL	Miami, FL 33186	Fort Laud., FL 33324



Want to see more of underwater Florida? Our boats also dive the fabulous wrecks of Miami and Fort Lauderdale. We can arrange your entire Florida dive vacation!

DIVE Florida





FLORIDA'S EMERALD COAST

photo/Paul J. Tzimoulis

encircle the spring, which contains two cavern openings. Sloping to a vertical limestone drop, the first is found at 30 feet and the other near 50. The large spring constantly releases a purified supply of fresh water from deep within the ground. Either cavern is safe to enter and neither can be penetrated beyond the natural light.

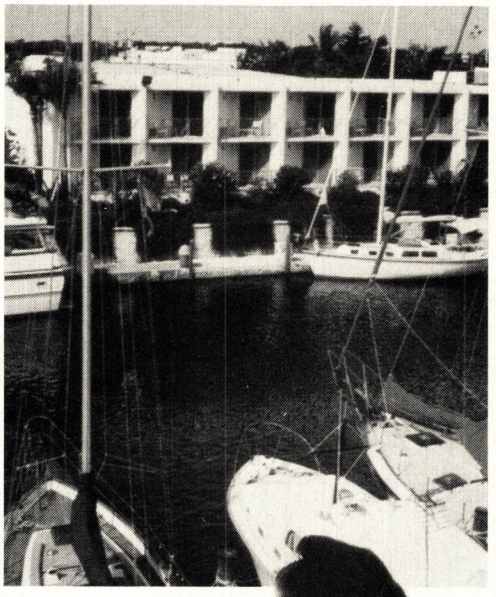
Vortex is 200 feet wide at the surface and reaches a depth of about 50 feet before becoming a cavern that can be explored safely to the end of the natural light zone. Beyond that it becomes a long cave system that must not be entered.

Most of the state's divable wild springs are in a fairly compact area along the banks of the Suwannee, Ichetucknee and Santa Fe rivers. Close to 30 are known to divers in the area. Near Branford, **Troy** is one of the most popular. So many divers can be found in it on weekends, the bubbles make it appear to be an enormous carbonated soft drink. On weekdays it, and most others, are virtually empty. Almost 100 million gallons flow daily from Troy's mouth into the Suwanee River. Eighty feet deep, its sheer rock walls drop almost straight down. On the way to

PENNEKAMP PARK • Holiday Inn®

A BETTER PLACE TO BE–KEY LARGO

3 DAYS 3 NIGHTS $215.50 *per person dbl. occ. price subject to change*



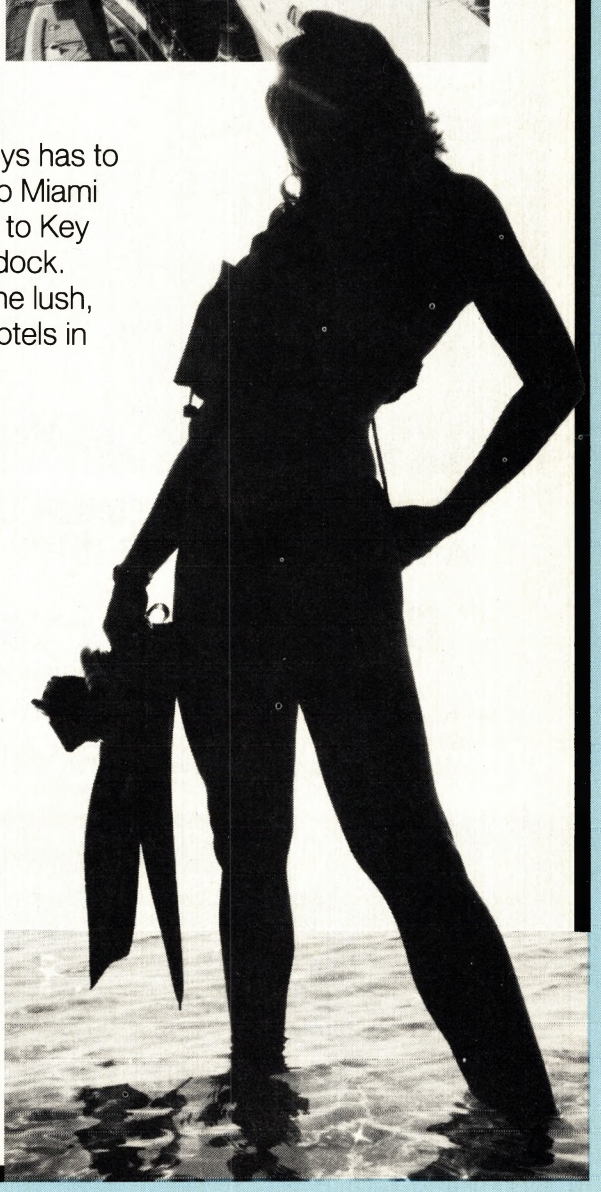
The complete resort in the fabulous Florida Keys.

Key Largo Holiday Inn offers 132 comfortable rooms and suites with double or king size beds. Enjoy a tropical drink at our Tiki Bar between dips in the pool, or tennis on our lighted courts.

Outstanding seafood and other entrees await you in Greenstreet's Dining Room, home of our famous Gourmet Seafood Buffet. On Sunday we offer a sparkling Champagne Brunch for your pleasure.

Key Largo Holiday Inn, the best the Florida Keys has to offer, is easily accessible by land, sea, or air. Fly into Miami International Airport and enjoy a short, scenic drive to Key Largo, or pull your boat up to our own deep-water dock. However you travel, make your diving destination the lush, tropical Key Largo Holiday Inn, one of only three motels in the Florida Keys to be awarded a three-star rating.





Dive package includes:
- Accommodations
- 3 half day boat trips
- 2 tanks/pak/air
- weight belt/weights

Snorkel Packages Available

Video Camera Rentals available

SEA DWELLERS
SPORTS CENTER

MILE MARKER 100-S, KEY LARGO, FL 33037

"We've never forgotten that diving is fun!"

1-800-451-3640

In FL **(305) 451-3640**

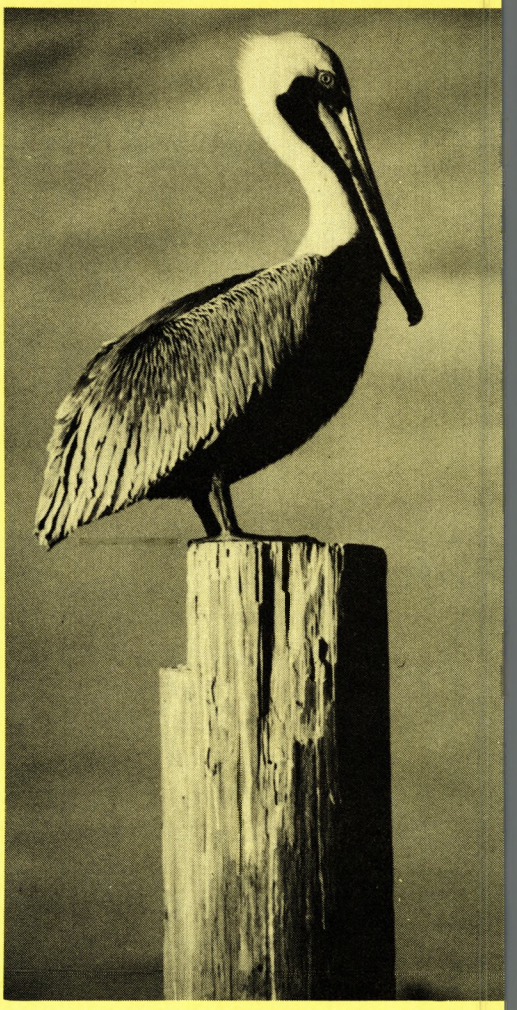
In Miami **(305) 245-0333**

the river the water's pressure has carved a natural stone arch. Farther down the river run, schools of mullet swim over the ribs of the Civil War steamer, ***Madison***. She was deliberately sunk in 1863 when her captain decided it was more important to sink her than chance having her captured by the Yankees.

Sixteen miles north of Branford, another deep spring flows into the river. **Royal** gets its name from its normally rich, royal blue water. More than 100 feet wide, steep banks drop straight down, forming sheer walls. Large boulders and trees are scattered across the basin. At 50 feet the spring becomes a dangerous, silty cave that is unsafe to enter.

East of Branford the **Ichetucknee River** flows right out of an underground river. Superbly clear, it is popular with swimmers and inner tubers on weekends. Divers start upstream inside the Ichetucknee Springs State Park, then drift three miles underwater in depths of rarely more than 12 feet.

Near Mayo, **Peacock Spring** was recently purchased by the state to become



DISCOVER OUR PENNEKAMP

with Capt. Slate's Atlantis Dive Center
and Howard Johnson's International Dive Resort

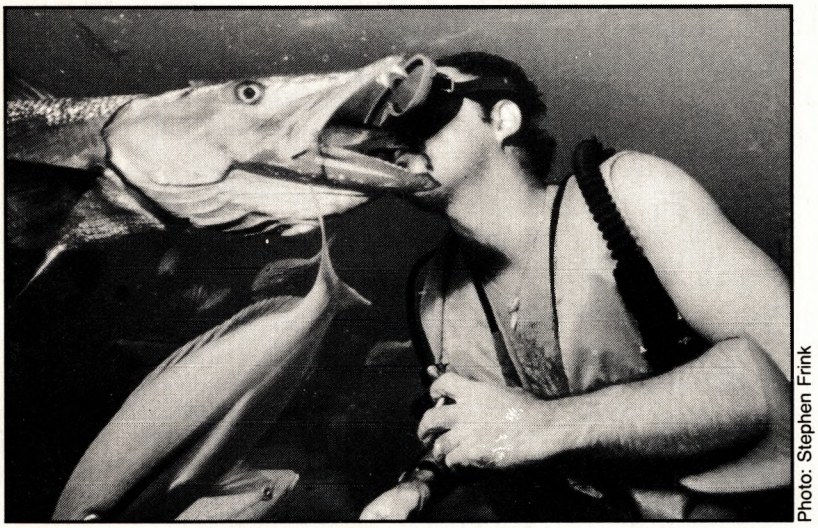


Photo: Stephen Frink

FLORIDA KEYS PREMIER DIVE FLEET
AND FULL SERVICE DIVE FACILITY

Dive Package $77
Per Person/Per Day Double Occupancy

Package includes:
- Full breakfast each morning
- Deluxe accommodations at Howard Johnson's
- 2 Tank dive trip w/Atlantis Dive Ctr. ea. day
- Tanks, air, backpack & weight belt

Watch Capt. Slate Feed His Pets

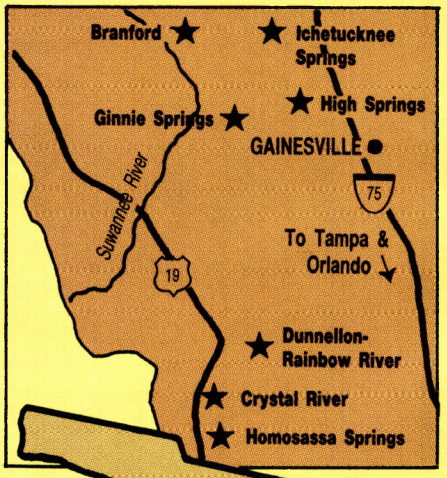
This pkg. avail. Jan. 5th-Apr. 30th, 1987. Advance res./3 day min. required

5 Day Bonus Package
Pay for 4 Days Get 5th Day Free
weekdays only

Capt. Slate's Atlantis Dive Center, Inc.
Atlantis Dive Center
51 Garden Cove Dr.
Key Largo, FL 33037

Howard Johnson's
1-800-654-2000
305-451-1400
Key Largo, Fla.

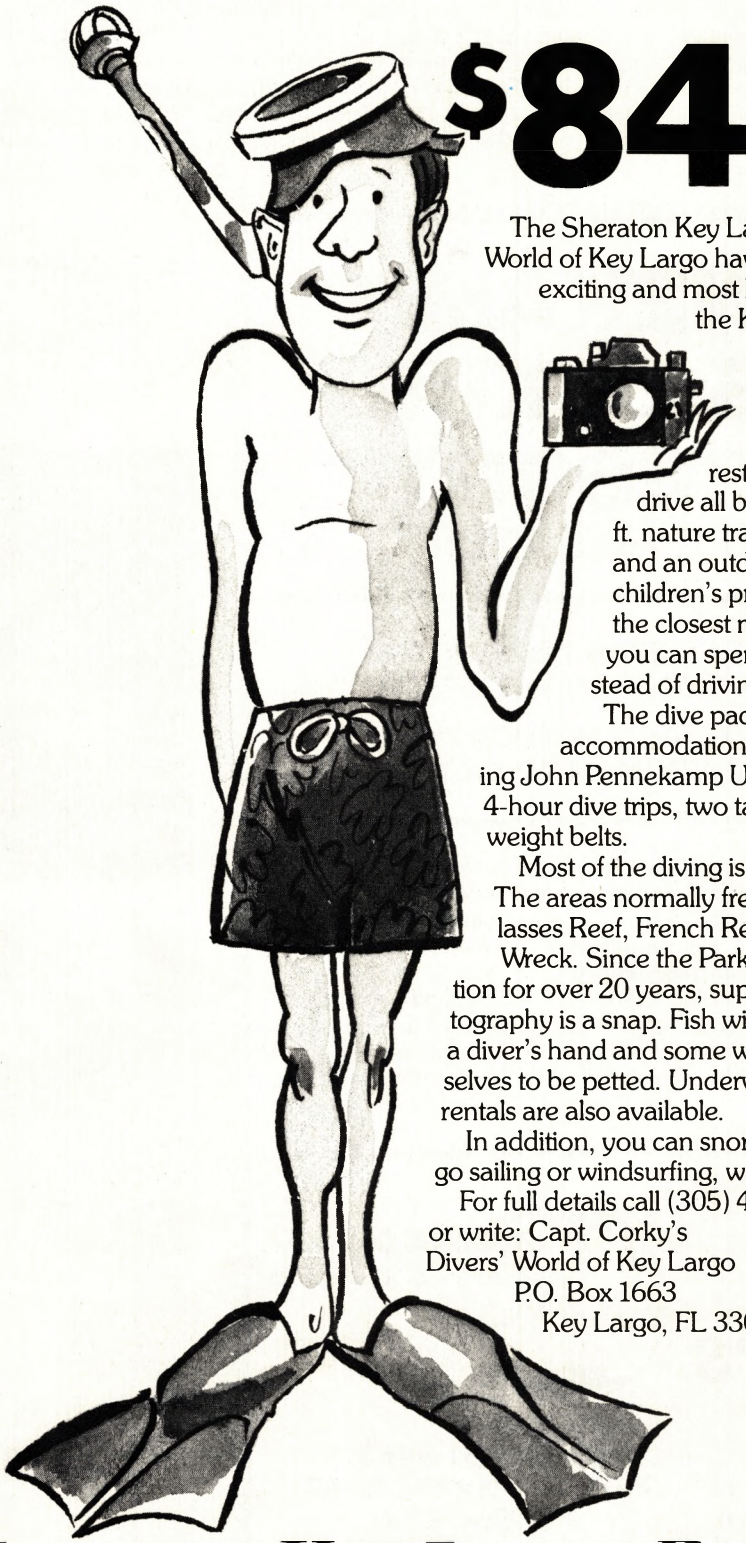
CALL TOLL FREE 1/800/331-DIVE
IN FLA. (305) 451-1325



FLORIDA'S SPRINGS

The crystal clear springs and meandering rivers of central Florida are easily reached and attract hundreds of thousands of divers and other watersports enthusiasts each year.

THE KEYS' NEWEST, MOST COMPLETE RESORT IS NOW OFFERING THE KEYS' MOST COMPLETE DIVE PACKAGE.



$84.95

Per Person/Per Day/
Double Occupancy
2 day/2 night minimum

The Sheraton Key Largo Resort and Divers' World of Key Largo have designed the most exciting and most luxurious dive package the Keys have ever seen.

The resort is a 200-room island of privacy overlooking Florida Bay with a gourmet restaurant that's worth the drive all by itself. There's a 2000 ft. nature trail, tennis, two pools and an outdoor Jacuzzi. Even a children's program. Best of all it's the closest major resort to Miami, so you can spend your time diving instead of driving.

The dive package includes deluxe accommodations, boat trip to neighboring John Pennekamp Underwater Park, two 4-hour dive trips, two tanks plus pack and weight belts.

Most of the diving is in 30-35 feet of water. The areas normally frequented include Molasses Reef, French Reef and the Benwood Wreck. Since the Park has been under protection for over 20 years, superior underwater photography is a snap. Fish will often eat directly from a diver's hand and some will actually allow themselves to be petted. Underwater video camera rentals are also available.

In addition, you can snorkel with the dolphins, go sailing or windsurfing, water skiing or fishing.

For full details call (305) 451-3200
or write: Capt. Corky's
Divers' World of Key Largo
P.O. Box 1663
Key Largo, FL 33037

CAPTAIN CORKY'S DIVERS' WORLD KEY LARGO, FLA.

Sheraton Key Largo Resort

97000 SOUTH OVERSEAS HIGHWAY, MM97, KEY LARGO, FLORIDA 33037

DIVE Florida

a park. At a depth of less than 20 feet the spring becomes a cavern/cave system that must be avoided. At its entrance a school of bream constantly swims in and out of the sunlight. Down its slough the water flows beneath thousands of lily pads before finally becoming a part of the Suwannee. Several other nearby springs, including **Orange Grove**, will be included in the new park.

Seven miles west of High Springs, 30 minutes off I-75, there are three springs that are very popular with divers: Ginnie, Devil's Eye and Devil's Ear. Inside a private park, **Ginnie** is the most popular. Its cavern can be safely penetrated to a depth of 60 feet. Just inside the narrow opening, the spring opens into a large chamber room. A permanent guideline leads down to the sealed cave entrance.

Devil's Eye and **Devil's Ear** are actually one spring system. The Eye, a cylindrical opening that drops straight down, can be entered safely to a depth of just more than 20 feet. There, a log is lodged in the cavern. Divers should not pass this point. Devil's Ear is at the spring's junction with the Santa Fe River. Another tree lies across its mouth. This system becomes a cave that has been the site of too many diver deaths. Only those with advanced cave diving training should even *consider* looking inside.

Depending on the time of year and the water level, the **Santa Fe River**, into which Ginnie, Devil's Eye and Devil's Ear flow, can be as dark as coffee or have visibilities of more than 50 feet. Even in limited visibility it is an exciting dive.

Unquestionably, the most popular spring in Florida is found in King's Bay at **Crystal River**. On U.S. 19 north of Tampa, its dive operators are equipped to handle large numbers of divers. The city

"PENNEKAMP PARK'S LUXURY DIVE RESORT"
SKIN DIVER MAGAZINE

KEYS ONLY PADI 5 STAR INSTRUCTOR DEVELOPMENT FACILITY/DIVE RESORT

FEATURING DELUXE ACCOMMODATIONS IN WATERFRONT ROOMS AND SUITES

- Pro Dive Shop/ Rentals/Air
- PADI Scuba Instruction/Specialty courses/Nite dives
- Stephen Frink U/W Photographic Service Overnight Processing/Video
- Doc's Galley Restaurant Waterfront Dining.
- Full service marina, boat rntls., fishing & sailing charters
- Ship Store/Marine Supplies/Bait/ Fishing Tackle/Fuel
- Custom diving and watersports pkgs.
- Oversize pool, whirlpool, health club, tennis
- Coconuts-waterfront cocktail lounge with live entertainment nightly

Ocean Divers

MARINA DEL MAR Resort and Marina

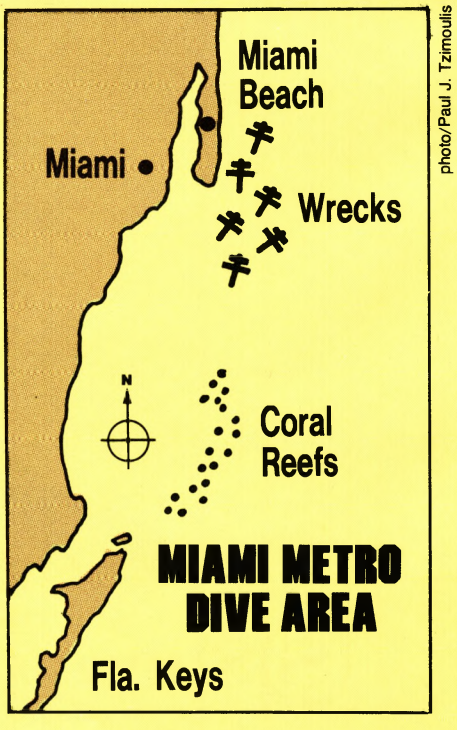
1-800-451-1113
In Fla. (305) 451-1113
522 Caribbean Drive
Key Largo, FL 33037

1-800-451-3483
In Fla. 1-800-253-3483
P.O. Box 1050
Key Largo, FL 33037

FLORIDA'S WEST COAST







photo/Paul J. Tzimoulis

FANTASIZE

TAKE A FANTASY TRIP ON THE ONLY "STATE OF THE ART" LIVE ABOARD, DIVE RESORT

"M/V ISLAND FANTASY"





FANTASIZE!
Dolphins, Whales, Wrecks, ALL DAY



FANTASIZE! Lobster, Prime Rib, Conch, Strawberries, Pineapple

Packages available with
Colonnades Beach Hotel
Holiday Inn
Alamo Car Rental
Eastern Airlines

$895.00 per person double occ.
$799.00 per person quad occ.
Group rates available



FANTASIZE!
Wind Surfing, Sunning, Dancing, Sipping



FANTASIZE! Piped in music, Central air 24 hrs., Your own head/shower, Velour blankets, Privacy

Member of the Yacht Charter Association of Florida.

TOLL FREE 1-800-848-7632
IN FL 1-305-848-7632

We staff our phones 24 hours a day
(Ask about special air fare)

Island Fantasy Cruises, 301 E. Blue Heron Blvd., Riviera Beach, FL 33404

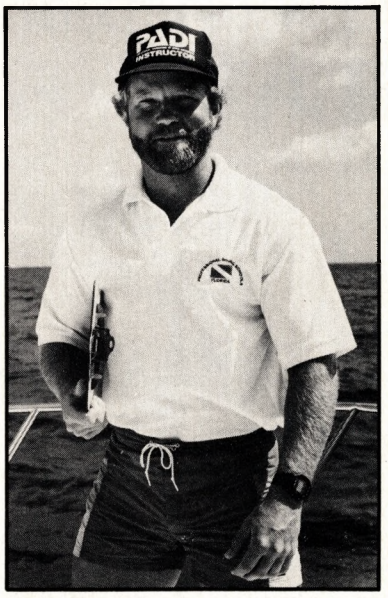
IS THERE A CAREER IN DIVING FOR YOU?

Let us prepare you for your career as a **PADI Instructor.** Our Scuba Career Development Center uses PADI's Four Step Educational Process: Rescue Diver, Divemaster, Instructor Development Course (IDC), Instructor Evaluation Course (IEC).

Begin your scuba career in our unique environment that combines island living with mainland convenience. Located in Ft. Lauderdale, we are the **only** PADI Training, Resort and Instructional Development Facility with classroom, pool, retail store, charter boats and hotel located in one convenient location – on the ocean! **PROGRAMS BEGIN MONTHLY!**

Master Instructor Certification Courses taught in wreck, deep, night, equipment and underwater photography.

Professional Diving Schools of Florida, has over 12 years of scuba training experience. Courses range from Basic thru Advanced with Specialty training in wreck, deep, and night diving. **COURSES BEGIN WEEKLY!**







PRO DIVE
FT. LAUDERDALE

Photos Mark M. Lawrence

CALL TOLL FREE 1-800-772-DIVE
In Florida 305-761-3413

Professional Diving Schools of Florida – Bahia Mar Yachting Center
801 Seabreeze Blvd., Ft. Lauderdale, Florida 33316



Dive the blue waters of the Bahamas aboard the M/V Dream Too! 56' of air-conditioned comfort. The alternative to large crowds!

7 Day 6 Night Pkg. $680.00
6 Day 5 Night Pkg. $580.00
5 Day 6 Night Pkg. $485.00
Join the "Dream Team" 305-723-9312

HOWARD JOHNSON'S

AND
LADY CYANA DIVERS
THE CENTER FOR WRECK & REEF DIVING
IN THE FLORIDA KEYS
DIVING & HOTEL PACKAGES
$79.00



1-800-221-8717
IN FL 305-664-8717
P.O. BOX 1157
ISLAMORADA, FL 33036

DIVE Florida

has excellent restaurants and hotels and actively promotes dive tourism.

The West Indian manatee is the primary reason Crystal River is so popular. During winter the large mammal seeks the food and warmth of King Spring's 72°F water. A slow moving marine animal, it sometimes comes directly to divers and nudges gently as if asking to be petted. Divers are, however, cautioned that federal and state laws protecting this endangered animal specify penalties for "harassment." Some officials have ruled that any contact with a manatee is harassment. Even swimming toward one can net you a fine. A prudent diver will wait for the manatee to come to him/her and still maintain a discreet distance.

King's Spring is a good dive even when the manatee is not around. With a basin of 30 feet, it has a cavern that can safely be entered to a depth of 60 feet. Mullet swim around the shallow edges of the spring while bream and bluegills wait at the bottom to attack any diver offering food to them.

At the base of the spring a monument has been placed to remind divers just how fragile life is and how close some species, such as the manatee, are to being wiped out of existence. "Life must become more than the wants and needs of humans," it reads. "We are not on this earth alone. If the manatee goes into extinction because the needs of humans became more important, then we will have taken another step toward our own demise. Extinction is forever and for all."

Centrally located, a trip to Florida spring country simply cannot be complete without a visit to some of the best tourist spots in the state. On the west coast, north of Tampa, Tarpon Springs is home to the only remaining group of sponge fishermen in the U.S. Using hard-hat diving equipment, the Greek divers work the seafloor just offshore in the gulf to keep a part of history alive.

In Tampa, you can see some of the world's more exotic ports by simply taking a walk. Morocco, Timbuktu, the Serengeti Plain, Nairobi, thousands of wild animals, and the spine thrilling Python roller coaster ride are at Busch Gardens' Dark Continent.

One hour south of Crystal River, at Weeki Wachee, live mermaids perform and free dive to depths of nearly 100 feet in an underwater theater. You can visit Tarzan's jungle a few hours east by taking a boat ride through Ocala's Silver Springs. Tarzan's leftover monkeys still chatter in the trees and imported birds scream their calls at the very place many of the original movies were made.

Southwest of Orlando you can see

some high flying waterskiers at Cypress Gardens. All day long they fly above the water on kites and build human pyramids while being towed by fast boats racing past flowering plants.

Near Orlando many childhood fantasies and characters come to life. Here you can shake hands with Mickey, Minnie, Snow White, Goofy, Donald Duck and the rest, or navigate through the American Wild West on a river steamer. Visit tomorrow, taste the world's cuisine, and explore a jungle with hippos, waterfalls and dangerous cannibals all at Walt Disney World and EPCOT Center.

One major attraction in Orlando simply not to be missed by divers is the Living Seas at EPCOT. More than six million gallons of seawater fill the state's "third" and the world's "sixth" ocean. Complete with many of the fish and animals you can see in tropical seas--including barracuda, snapper, angelfish, rays, parrotfish, dolphins and sharks—the Living Seas also frequently includes the world's only diving mouse: Mickey Mouse. That's right. Mickey is a certified diver! Visitors to this inland ocean take an exciting U/W (you stay dry) trip to a high-tech 21st century oceanic research base called Sea Base Alpha. Housed in a 170,000 square foot building, the "ocean" is 27 feet deep and 200 feet wide.

If you've ever wanted to run away and join the circus you can be a clown for a day at Circus World. Or, if you've dreamed of going to Alaska to photograph killer whales, you can watch a pair and their baby, born in captivity, perform at Sea World. All these and more fun places are very near the north/south Florida turnpike near Orlando.

JUPITER INLET AND THE PALM BEACHES

On your way from central Florida to the Palm Beaches, plan to visit the Space Coast east of Orlando. Here you can tour NASA's Kennedy Space Center at Cape Canaveral and see many of the exhibits from the U.S. space program.

Between Vero Beach and Fort Pierce, take time to walk along the beaches of the Treasure Coast. This is one place you might be happy to get caught in a heavy storm. After many big blows, gold coins and silver pieces of eight from Spanish treasure galleons of the 18th century have been found lying in the sand. In 1715, ten ships carrying treasure from Havana to Spain sank off these shores.

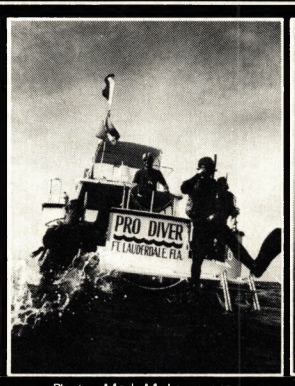
Known internationally for its opulent estates and flaunted wealth, the Palm Beaches are also well known to Florida divers for clear, fast moving water and good dive sites. Drift diving is the method of choice at most of these sites. Once you become accustomed to drifting effortlessly above these reefs, you may decide anything else is a waste of energy.

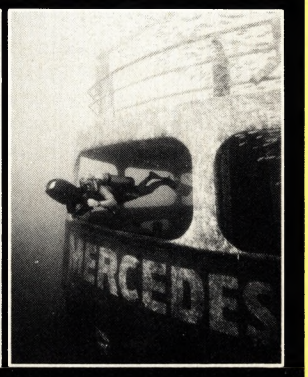
Most reefs are one-half mile or more offshore. North of Palm Beach, running south past the brilliant red Jupiter inlet

PRO DIVE

FLORIDA'S GOLD COAST







Photos Mark M. Lawrence

We Guarantee Over 50 Reefs and Wrecks Including The Famous "Mercedes I"

DIVE PACKAGE INCLUDES:

- Ocean or marina view room
- Free welcome cocktail
- Half day charter aboard the "Pro Diver" including 2 dives on wrecks or reefs
- Tanks, back pack, weight belt
- Refreshments on board

$89.00 pp/double occ. per day
$129.00 single occ. per day
Jan. 1 thru April 30

$69.00 pp/double occ. per day
$89.00 single occ. per day
May 1 thru Dec. 20

PROFESSIONAL DIVING SCHOOLS OF FLORIDA

- ½ Day Dive Trips $25.00
- Student Referral Training
- Openwater Upgrades
- Advanced Certifications
- Specialties - Night, Deep, Wreck, Search and Recovery, Underwater Photography

PADI 5 Star Training And Resort Facility

PRO DIVE FT. LAUDERDALE

FOR DIVE TRIP INFORMATION, INSTRUCTION AND RESERVATIONS

1-800-772-DIVE

Pro Dive Charters

Bahia Mar Yachting Resort (A1A) • Ft. Lauderdale, FL 33316

Florida and local calls phone: (305) 761-3413



NORINE ROUSE SCUBA CLUB

OF THE PALM BEACHES

- Best diving and best facilities in the United States
- All dives within 20 minutes of our dock
- Excellent visibility
- Two to six dives daily
- Two U/W guides on each trip
- Deep tank and pool
- Activities room • Dark room
- Steam bath • Picnic area
- Hotel accom. available with Hilton Inn of the Palm Beaches

HILTON

4708 N. Dixie Hwy., W. Palm Beach, FL 33407; Phone (305) 844-2466

DIVE Florida

lighthouse, the Gulf Stream comes almost to shore. Moving at speeds of up to several knots, it makes diving these ledges similar to flying underwater. Each group of divers trails a marker float and in 45 minutes you can cover as much as one mile! When your bottom time is up, the boat will be waiting within a few yards of your marker.

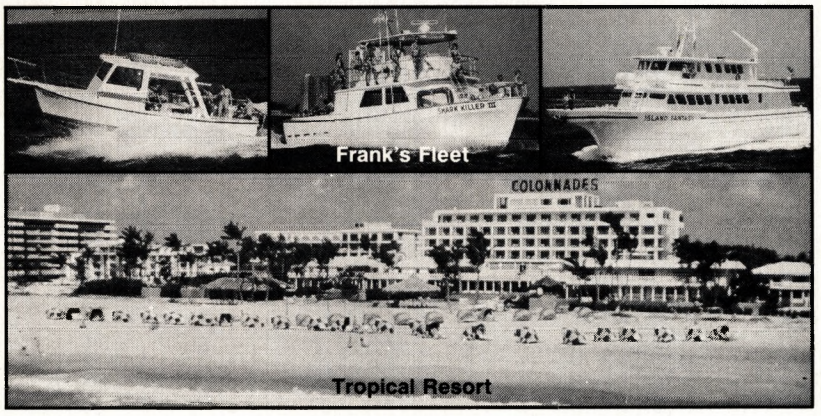
Most of the sites near Jupiter range between 40 and 100 feet deep. One of the most popular is **Jupiter High Ledge**. As deep as 90 feet, the break jumps to a shelf at 65. Except for the many large holes and crevices where you can hide, the Gulf Stream's current makes it tricky to stop for a close look. The ride, however, is awesome.

Several miles long, the Jupiter Ledge is inhabited by the same marine life you expect to see in the Keys or Caribbean. Schools of jack crevalle weighing 20 to 30 pounds each often accompany you. Big green morays sometimes swim out of hiding when divers approach and large manta rays have been known to come right out of the blue!

Best Kept Secret In Florida

DIVER'S DREAM VACATION IS HERE THANKS TO

The Colonnades Beach Hotel & Frank's Dive Shop



The Colonnades Beach Hotel—Located on 16 acres of tropical landscaping with 1500 ft. of white, sandy beach. Three excellent restaurants with nightly entertainment. Other features include beach front bar, clay tennis courts, golf (special rates with PGA), spa, 2 fresh water swimming pools and only 18 mins. from PBI Airport.
Frank's Dive Shop—The oldest dive shop in the Palm Beaches and the innovators of drift diving. Three dive boats with professional captains and crew. Divemasters and guides on all boats.
Diving—The crystal clear and warm waters of the gulf stream sweep closer to shore here than anywhere else in Florida. Over 60 dive sights with numerous wrecks and reefs.

$259 pp/dbl.
6 days/5 nights
Package includes: • Hotel accommodations (taxes incl.) • Welcome cocktail • **10 tank dives**, weights/tanks/air • Sun.-Fri. (late chk. out) • Group rates available

$135 pp/dbl.
3 days/2 nights
Package includes: • Hotel accommodations (taxes incl.) • Welcome cocktail • **6 tank dives**, weights/tanks/air • Weekdays only

INQUIRE ABOUT SPECIAL AIR FARE W/PACKAGE

CALL FRANK'S DIVE SHOP
1-800-848-7632 • (In FL 305-848-7632)
301 E. Blue Heron Blvd., Riviera Beach, FL 33404
Colonnades Beach Hotel, 101 Ocean Ave.
Palm Beach Shores, FL 33404; 1-800-327-7661

The best known wreck in the area is the ***Mizpah***, near Palm Beach inlet. In 90 feet, the 185 foot long yacht was purposely sunk as an artificial reef. It is a fish preserve with no spearing or collecting allowed. On the seafloor for almost 17 years, she is badly deteriorated and going inside is considered unwise. Thousands of baitfish swim about her and a school of grunts can usually be found swimming inside her open bow.

A few feet away the patrol craft ***PC 11*** is broken in half. Drifting with the current, you can explore the two ships uninterrupted. Not far behind the patrol craft is the 300 foot freighter ***Amarilys***. Schooling fish hide from the current inside her hull and bulkheads.

One-half mile south of the Palm Beach/Lake Worth inlet is one "wreck" that could only be found in Palm Beach. A perfectly good 1967 **Rolls Royce** Silver Shadow worth more than $25,000 at the time it was sunk, the car was donated by a local businessman to attract media attention to the artificial reef program. Two more wrecks, a barge and the freighter *Eisuad*, join the Rolls to form what is called the **Palm Beach Triangle**.

Reef breaks and ledges such as the **Breaker's**, **Trench**, **Cable Crossing**, **Double Ledges** and **Paul's** rise from two to eight feet off the sand. Constantly washed by the Gulf Stream, these reefs are populated with angels, butterflies, snappers, groupers and spadefish.

Down the coast from Palm Beach, between the beach cities of Lake Worth and Pompano Beach, the reef is even more dramatic. The break jumps high off the sand and is heavily encrusted with sponges. **Lynn's**, **Delray Ledge**, **Fingers**, **Boca North** and **Hillsboro** reefs begin to look very similar to those in the Keys, less the elkhorn corals. Schools of hundreds of blue lined grunts swim about the reef face. Smaller tropicals are also more common. Some reefs even have the large brain corals that are commonly seen in the Keys.

FORT LAUDERDALE AND HOLLYWOOD

Known for its beaches and annual rites of spring break, Fort Lauderdale has also become one of the most popular dive destinations in the state. Although the area is not as blessed with the clear waters relatively common just a few miles to the north, the large number of divers visiting Fort Lauderdale and Hollywood indicates they are excited about what they are seeing.

Numerous angelfish, parrotfish and jacks are seen on these reefs. Beneath a covering of colored sponges, schools of snapper frequently hide. In season, divers can be found looking under every ledge for the signs of spiny lobster. Sometimes as many as three can be spotted in the same hole.

South of the Port Everglades inlet are two reefs that are among Broward Coun-

ty's best known. **Barracuda** comes within 20 feet of the surface, while the deeper **Hammerhead Reef** begins at 60. The shallow reef has lots of staghorn, brain, star and other corals. Purple seafans wave above coral tunnels that are hiding places for spotted or green morays.

Hammerhead's coral fingers tend to run seaward, forming ridges similar to those found on the shallow inshore reef. Its top is also overgrown with lacy gorgonians and sponges. Schools of big ocean fish frequently swim along as you drift dive in the current.

Wrecks and artificial reefs are fast becoming a major dive attraction. One of the most recent additions was purposely placed near Hollywood at the southern edge of Broward County. Donated by the Tenneco Oil Company, the reef is made up of the three major sections of a retired Gulf of Mexico **Oil Drilling Platform**. Proven very effective as fish attractants while in use, the sections are in 60 to 120 foot depths at intervals of approximately 75 yards. The shallowest third is comprised of the upper derrick structure, the middle third is the working deck and the deepest third is the legs. This artificial reef has been officially opened to spearfishermen, but spearing is not permitted on other Broward artificial reefs. Currents can be fierce at this site, but when they move in over the area they frequently bring many Gulf Stream fish.

Other Fort Lauderdale artificial reef sites are made up of several boats, freighters and barges. The most colorful is an old **Houseboat**. Down for more than 20 years, it is covered with sponges and gorgonians. The boat is home to hundreds of tropicals and a number of barracuda. Because it is close to the Gulf Stream, the current here is often stiff, but it makes the water clearer than it would be otherwise.

A 10,000 pound **Freighter Anchor**, apparently lost from a large ship that ventured too close to shore, lies in less than 30 feet near a popular section of northern reef. Its 200 feet of anchor chain lies stretched out, making a good wide angle photo prop.

The freighter ***Rebel*** was sunk in midsummer 1985. With a length of 150 feet, it sits in 110 feet of water. Fish are beginning to find the location and a large number of baitfish have already taken up residence above the wheelhouse.

The most famous of all the Fort Lauderdale wrecks is the ***Mercedes***. One hundred ninety-seven feet long, its stern sits in just more than 90 feet, with the bow at 100. It was a derelict freighter that came to rest on a Palm Beach millionaire's beach one Thanksgiving night several years ago. For months it refused to budge before finally giving up its ground and allowing itself to be towed to Fort Lauderdale and sunk. It has since established itself as one of the most popular wrecks in the state. It's directly adjacent

KEY WEST

"Going All The Way Can Be Better Than You Think!"

Seasports DIVE CENTER



Come stay with us on our own special island. Enjoy: Wreck dives, lobster dives, spearfishing trips, The Dry Rocks & Sand Key. Dive with us in Key West where we feature a unique and festive island with some of the most spectacular diving in the Florida Keys. Enjoy stunning sunsets where local people and colors enchant you. Complete travel arrangements for your dive vacation. Packages ranging from the finest resorts to more moderate island accommodations, available for individuals and groups.

This Simonton Court is located in the heart of historic old town Key West

Key West Style Package

$69.95 PER PERSON DOUBLE OCCUPANCY (MID WEEK ONLY)

$74.95 PER PERSON DOUBLE OCCUPANCY (WEEKENDS ONLY)

This package includes hotel accommodations, 2 location 2 tank dives including tanks and weight belt.

For Friendly, Professional Service

CALL (305) 294-6172

294-6224

101 Margaret St.
Land's End Village
Key West, FL 33040

Dive with Seasports in W. Palm Beach. Palm Beach's newest and most complete dive operation.

Laurels we value.

Selected for...
A CONNOISSEUR'S GUIDE TO SMALL, ELEGANT HOTELS!

Selected for... "BEST OF THE BEST'S" Regal Resorts!

Awarded FIVE STARS by... WORLD TENNIS MAGAZINE!

◆◆◆◆
...AAA RATING

Our own boats and PADI staff.
3 nights with lavish breakfasts,
3 - two-tank dives
$385 per person

Hawk's Cay Resort and Marina
A *very* casual island resort in Florida's Keys - 50 minutes to Miami Airport.
Mile Marker 61, Marathon, Florida 33050-9757
Telephone: (305) 743-7000/(800) 432-2242 (Fla.)
(800) 327-7775 (Outside Fla.)

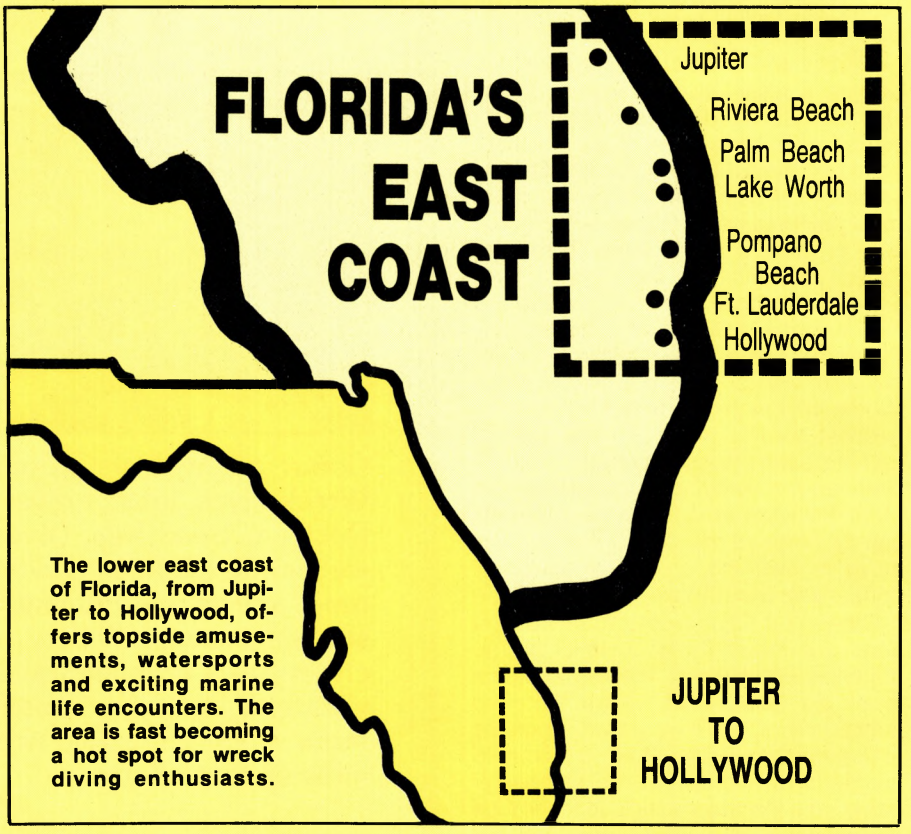
DIVE Florida

to a lively reef and fish have moved onto it quickly. Many colorful soft corals have attached themselves to what would have otherwise been a barren hulk of lifeless rusting metal.

MIAMI AND HOMESTEAD

Highlighted each week on network television in the glitzy episodes of Miami Vice, Miami is one of the most beautiful cities in the state. As seen in the opening minutes of the show, the night skyline from the seaport where Detective Crockett keeps his yacht is dazzling. By day or night it offers plenty of excitement and diversions for divers and their friends.

Here you can experience a hurricane,



DISCOVER PENNEKAMP

aboard the privacy of our "6" passenger custom dive boats
Dive & Hotel Package
$58.00
Per pers., dbl. occ. incl. accommodations, half day 2 tank dive, tanks & wt. belt. Two Day Min.
Custom tailored dive trips to meet your requirements:
*Reef Dives *Wreck Dives
*Drift Dives *Night Dives
PADI Instruction
305-451-4941

SEA QUEST DIVE SERVICES
At Garden Cove Marina
Post Office Box 571
Key Largo, FL 33037

National Association of SCUBA DIVING SCHOOLS

AQUANAUT
Scuba Center, Inc.
The Diving Professionals

HOTEL/DIVE PACKAGE
$40.50
per person/per day
double occupancy

Includes:
- Deluxe Hotel Accommodations
- 2 Dives with the Aquanaut or Barracuda
- Cylinders, Air, Weight Belts
- Free Drink and Discount at the Famous Sand Flea Restaurant

Best Western
Village Inn

For Information and Reservations Call:
CALL TOLL FREE 1-800-637-2822
Group Scuba Packages Available Now



board a research submarine at Planet Ocean, see TV's Flipper or Lolita the killer whale perform at the Miami Seaquarium, place a wager at the horse races, pet a blue and gold macaw at Parrot Jungle or see the rare white tigers at Metrozoo.

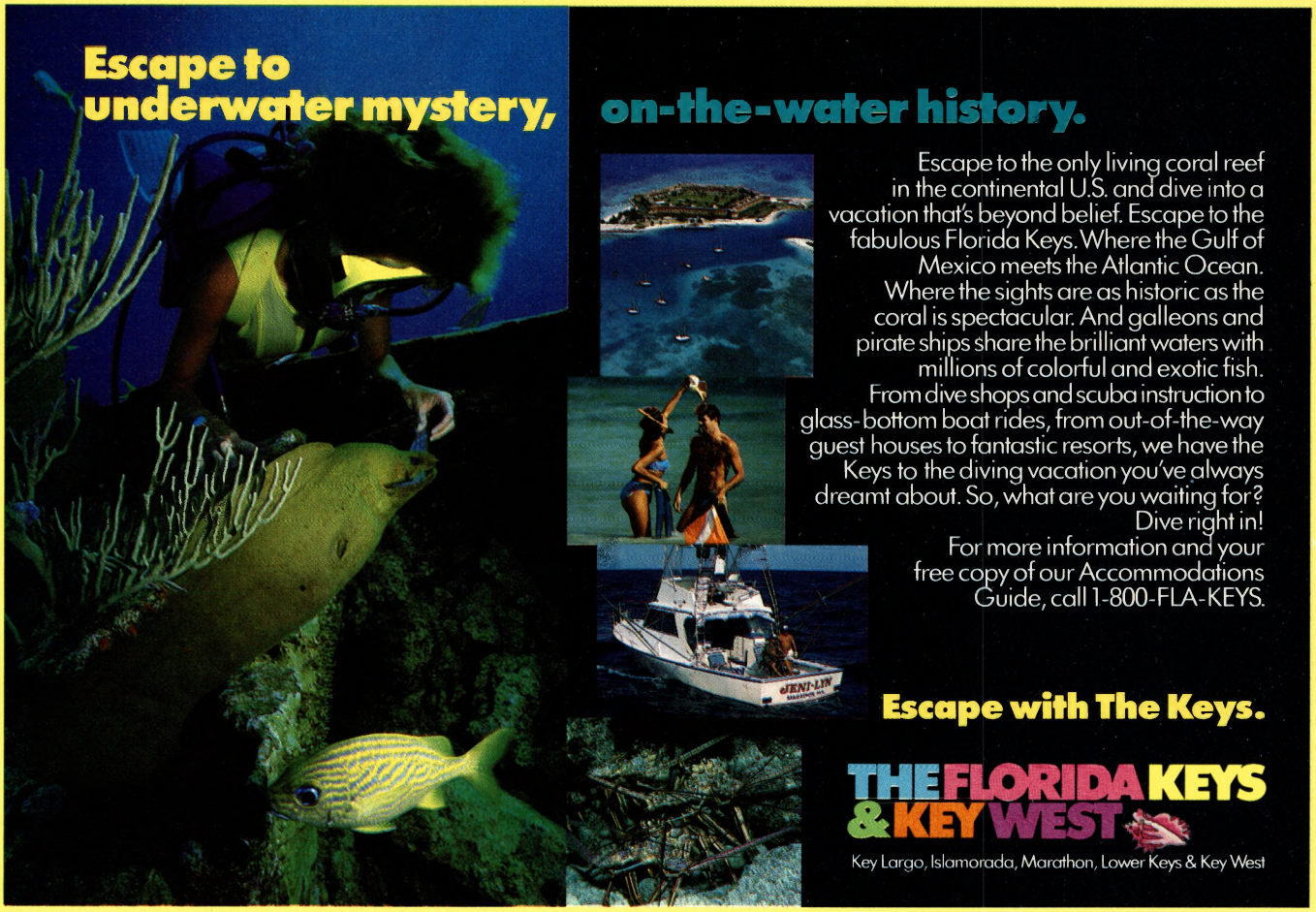
Between Homestead and Naples, the Everglades National Park offers winter shelter to the thousands of colorful migrating birds that congregate each year around its sawgrass ponds. Out in the swamps, alligators bellow and often come within a few feet of the park's elevated wooden walkways.

To date, Miami has the largest concentration of wrecks in North America, owing to an aggressive artificial reef program administered by DERM (Metro-Dade County's Department of Environmental Resources Management). More than three dozen sizable ships can be dived. Most are in less than 100 feet of water.

East of Miami's Key Biscayne, several ships lie in depths ranging from 50 to more than 100 feet. The **Biscayne Freighter** is overgrown with deepwater gorgonians and seafans. Thousands of grunts hover close to the hulk.

The 200 foot long ***Proteus*** has little relief above deck but has a massive prop at its stern. The bomb that sent her to the bottom ripped open a gaping hole leading into the engine room just in front of its

photo/Geri Murphy



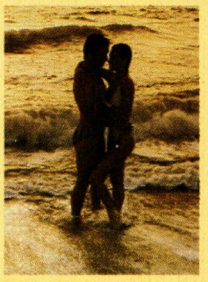
IMAGINE A WATER WONDERLAND WITH FUN BOTH IN AND OUT OF THE WATER.



From our 23 miles of splendid beach to our close-in offshore reefs, Greater Fort Lauderdale is paradise for anyone who loves the sun and the water. Dive shops, dive skippers and charter boats are in abundance.

Call your professional Travel Agent or write: Broward County Tourist Development Council, 201 S.E. 8th Avenue, Fort Lauderdale, Florida 33301.

Imagine a Greater Fort Lauderdale vacation. Imagine that.



GREATER FORT LAUDERDALE

HOLLYWOOD • POMPANO BEACH
LAUDERDALE-BY-THE-SEA • DEERFIELD BEACH

GULF COAST'S LARGEST MOST EXPERIENCED DIVE SERVICE

PANAMA CITY
500 MILES CLOSER
Tennessee
South Carolina
Mississippi
Georgia
Alabama
Louisiana
Florida
Panama City
200
300
400
NORTH FLORIDA'S BEST DIVING

THE FINEST WREck & REEF DIVING ON THE ENTIRE GULF COAST

HYDROSPACE DIVE SHOP

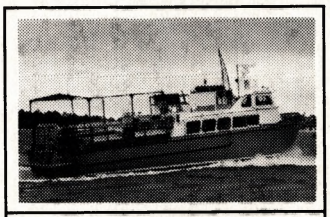
3605-A THOMAS DR.
PANAMA CITY BEACH,
FL 32407

DAILY WRECK & REEF DIVES

FAST 48' CUSTOMIZED DIVE BOATS

CUSTOM PACKAGES FOR INDIVIDUALS & GROUPS

CALL FOR INFORMATION
1-800-874-3483
In Florida 904-234-9463





HOMESTYLE LUXURY VILLAS IN A GARDEN

LIGHTED TENNIS

SAUNA — HOT TUB

SAILING

SHOPPING

The Inn at St. Thomas Square

drive shaft at the stern. Grunts and snapper stay in tight groups near this hole and move only when disturbed by divers.

The tug ***Orion*** is the king of the Miami wreck fleet, second in diver visits only to the *Biscayne*. Far more dramatic, the holes where dynamite charges exploded are visible in her sides. Around the smokestack schools of baitfish swarm. Below them, inside the wheelhouse, thousands of grunts hover motionless. Four large green morays have also recently taken up residence on the wreck.

Just south of the Fowey Reef marker light the freighter ***Blue Fire*** sits in more than 100 feet of water. She's one of the most exciting South Florida wrecks and thousands of baitfish work from bow to stern along her 175 feet of deck. They are constantly pursued by a school of large jacks weighing up to 50 pounds each. Soft corals cover the railings and stairways while sponges surround the wreck, appearing to be large barrels that have rolled from the ship's deck.

Not far away, the ***Ultra Freeze*** is in 120 feet. With its wheelhouse only 70 feet U/W, it has also developed large fish populations and colorful growth.

North of the Biscayne, the remains of the Woolworth yacht ***South Seas*** sits on the otherwise barren sand in just more than 70 feet. Looking ghostly, it was relegated from its early 20th century opulence to become a dockside bar, finally sinking at its mooring when abandoned. Refloated with great difficulty, the old yacht sank once more inside the bay before being coaxed to its present site.

The 210 foot long ***Deep Freeze*** is one of the oldest of Miami's wrecks. In 135 feet of water, its cargo holds are now filled with swarms of fish. On the bow, two ladders climb to an upper foredeck where an enormous encrusted winch is frozen at the port side. The bow is covered with seafans, making it one of the most colorful wrecks in the area.

One of the very best, the ***Almirante***, was sunk by a fishermen's organization. At 175 feet, it rests east of Elliot Key near Homestead. Completely overgrown with soft corals and sponges, it is cruised by large schools of jack and snapper. Tiny damsels, divided with bright yellows and blues, combine with the colors of the soft corals to make you believe you have been momentarily transported somewhere far away in the South Pacific.

THE KEYS

The state's most dived area is the Florida Keys. The reefs that grow near Key Largo, Islamorada, Marathon, Big Pine and Key West are the most spectacular in the state. Elkhorn, brain, staghorn and

star corals bond together to form living barriers alive with marine organisms.

Winding in a slow, 100 mile arch, the island chain runs first to the southwest and then west, spanning the entire width of the state. Dive flags fly everywhere along U.S. 1. There are more dive stores per mile in the Keys than anyplace else in the country.

Here you can dive, snorkel or just view the coral reefs from the comfort of several large glass bottom boats. Then you can go out and see the dolphins leap at Flipper's Seaview. If you have always wanted to try deepsea fishing, you can charter a fishing yacht at Islamorada and challenge a marlin or shark to a duel of strength. Top off the day by cracking some boiled shrimp, fresh stone crab claws or a broiled lobster.

If you're a fan of Cousteau and have watched his episodes about living in an underwater habitat, you can share the experience in Key Largo. At the Koblick Marine Center you can spend 24 hours in either an underwater hotel called the Jules Undersea Lodge or a submerged marine lab.

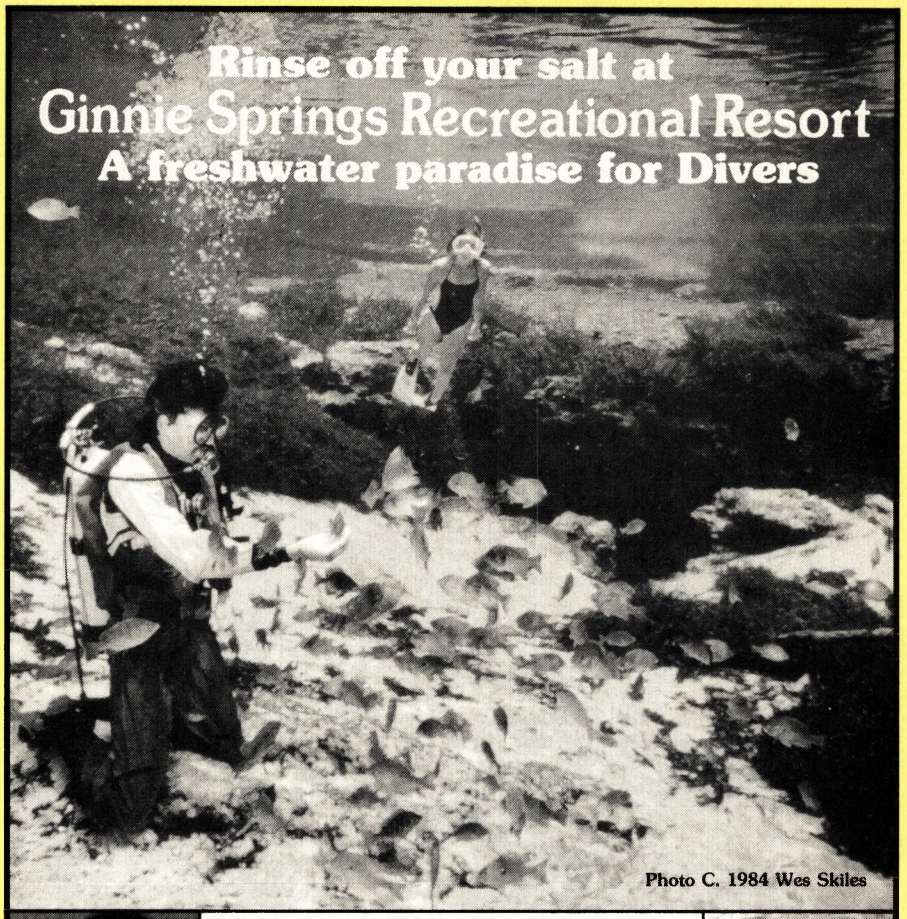
Only recently placed underwater, the Jules Undersea Lodge can house up to six persons at a depth of 30 feet and is the only hotel of its kind in the world. Everything you would expect in a hotel is included: air-conditioning, bath, hot showers, stereo and TV. You prepare your own meals in an underwater kitchen. When you get tired of watching television, look at the living show just outside your undersea window, or better yet, grab a hookah regulator and take a swim with the fish.

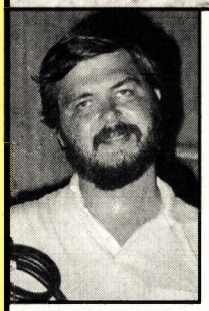
If you are an educator, or just want to learn more about marine science, you can sign up for any of several different classes in the Habitat Diver program and spend 24 hours underwater learning about the sea. With either, you qualify for a PADI or NAUI habitat diver certification and become a certified aquanaut.

At Key West, watch the daily impromptu circus on the docks at Mallory Square where jugglers, fire eaters and other performers put on a show while the sun sinks below the waves. If you've been excited by all the stories of Mel Fisher's finding the treasure of the *Atocha*, you can get your hands on some of it and hold a gold bar worth $250,000 at the Treasure Salvors Museum at the end of Green Street. In the museum you'll see the jewels of Spanish kings and queens while learning more about Spanish exploration and history.

THE UPPER KEYS

Most of the state's better known reefs are found within John Pennekamp Park. At its northern end, **Carysfort** is marked by a steel lighthouse. The ship HMS *Carysfort* sank here in 1770, leaving little more than her name on the reef. Her remains, shaped like odd pieces of junk,




Mark Leonard

Two of the best reasons to take the most Important Diver development course in your Diving career.

Our Instructors are the world's leaders in teaching the multiple programs offered to prepare a diver for the Overhead Environment. (NSSCDS, PADI, NAUI Cavern and NSSCDS Basic Cave and Cave.)

Nowhere else will you find better Diving locations and facilities for these most educational and valuable Diver development programs.


Wes Skiles

For a unique package on more information & details call or write to:

Ginnie Springs
Rt. 1 Box 153, High Springs, FL
1-800-874-8571 (904) 454-2202 in FL

DIVE JUPITER
with John Larsen's
ADVENTURE SCUBA

*For more excitement *more fish
*larger lobster *Drift Diving
*Reefs *Wrecks *Daily Trips
*Personalized Services
*Spearfishing *U/W Photography
*Largest Dive Facility
*Packages Available

Call (305) 746-1555
150 N. U.S. Hwy. 1
Tequesta, FL 33469

Florida Keys Dive Center
A PADI 5-Star Training Facility

Dive Package Special

★Pennekamp Park
★287' Eagle Wreck
★Conch Reef Wall
★Capt. Toms Ledge
★1733 Spanish Galleons
★Pickles, Davis, Crocker Reefs and much More!

Only $63.50 Per Person per day, dbl. occup.

Includes: Deluxe Accom.,two tank dive trip, tanks, wgts. and air.

(305) 852-4599
P.O. Box 391, Tavernier, FL 33070

DIVE Florida

are scattered about the sand. Infrequently dived by the majority of dive operations, its shallows are thick with the intricate patterns of elkhorn and staghorn corals.

Carysfort is comprised of two distinct coral ridges. The first extends right out of the water, the second, 100 feet farther out, grows from a wide sandy floor to within 30 feet of the surface. Schools of tropical fish are thick and, unlike their relatives at other nearby reefs, are often more wary.

In the center of the park, **Elbow Reef** is also well marked with a tower light. One of the more frequently visited sites in Florida, it has numerous coral ridges and a wreck within its boundaries.

Within the metal plates of the ***City of Washington*** wreck live several large green moray eels. They commonly swim out in the open to beg for food. Unaggressive, they are accustomed to being handfed by some of the local divemasters. These "pets" do have sharp teeth, however, and have been known to bite accidentally! It is best to leave eel feeding to an experienced divemaster.

The site most often associated with Pennekamp is the **Christ of the Abyss**. Donated by Egidi Cressi of the Italian dive equipment company Cressi-sub, the nine foot statue is permanently fixed to a concrete base at Key Largo Dry Rocks. In water shallow enough to be ideal for snorkeling and diving, its arms stretch to within ten feet of the surface. Some of the largest brain coral heads in the Keys grow around the statue's base.

The freighter ***Benwood*** was sunk during World War II. In depths of 30 to more than 50 feet, it was torpedoed by a German U-boat and rammed by a second boat before her captain put her aground at her present site. Considered to be a navigational hazard during the 1950s, she was used as a military bombing range. She was 300 feet long, but only her steel plates, keel and ribs remain. Lobster are sometimes found in the metal while large schools of fish live alongside the encrusted hull. The *Benwood*'s anchor is in front of the bow next to a small coral ledge at a depth of 60 feet.

French Reef is popular because of its many coral caverns. Actually open ended tunnels winding through the corals, they can be found all across the southern end of the reef. Masses of copper sweepers swim deep inside while yellowtail snappers wait to be fed at every entrance.

Molasses is the park's most popular spot. A large reef with many corals, you can move a few hundred feet away from your first dive site and find what appears to be a totally different reef. Receiving its name from a barge that once sank here while carrying molasses, the reef is best known for its monstrous heads of star corals topped by elkhorn corals.

The reef's northern end is a favorite place for snorkeling and glass bottom boats. Most of the favorite dive sites are only 30 feet deep, near the steel light tower that marks the reef's center. **Hole in the Wall** and **Winch** are frequently the first places student divers see while on their checkout dives. At the reef's southern edge an old galleon anchor lies stretched across the sand. Ten foot high walls covered with orange sponges and corals are not far away.

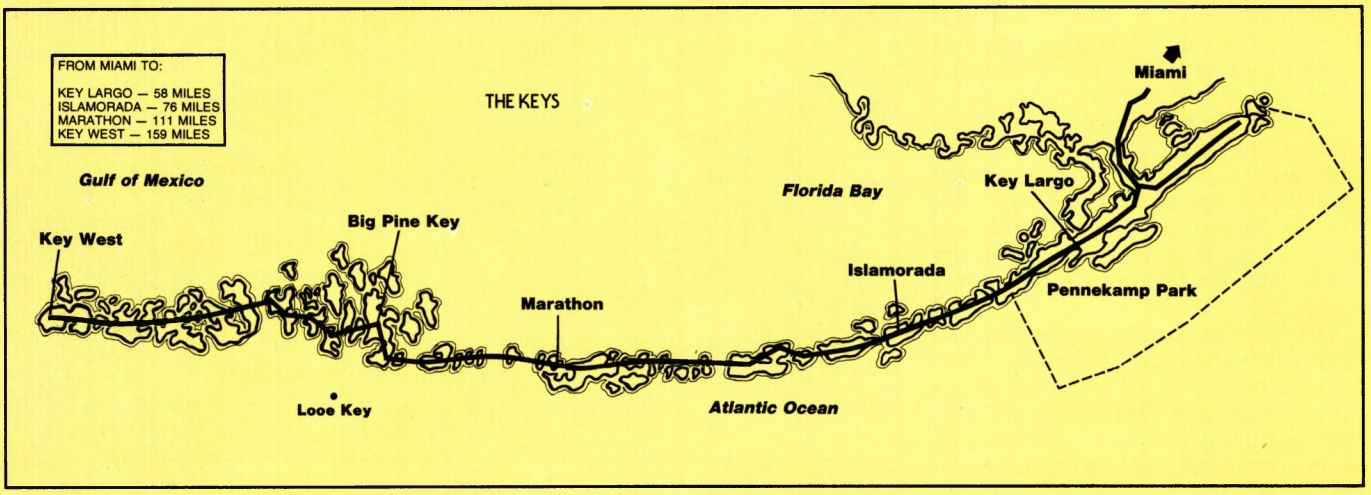
Outside the park, **Pickles** comes close to the surface with average depths of less than 30 feet. Numerous small invertebrates live in the corals, making the reef ideal for photographers equipped with close-up lenses or extension tubes. Another nearby reef, **Hens and Chickens**, is similar to Pickles in depth and structure. Schooling spadefish are commonly seen at this site.

Crocker is a sloping coral cliff. Depths reach 50 feet before dropping almost vertically to 80. Turtles and larger marine animals are often seen close to the edge.

The **Cannabis Cruiser** sits upright on 110 feet of sandy seafloor. A tugboat loaded with marijuana, it was sunk by its crew, apparently to avoid arrest. Grouper, jacks and other fish swim about and little remains of its soggy contraband.

Near Islamorada the freighter ***Eagle*** is one of the most spectacular dive sites in all of the Florida Keys. Purposely sunk in December 1985 by the Artificial Reef Committee of Monroe County, the nearly 300 foot long freighter sits in 110 feet. Rising more than 40 feet from the bottom, it is massive and has attracted thousands of fish since its sinking.

Delta Shoals begins in shallow water



GREATER FORT LAUDERDALE

YOU'LL LIKE OUR STYLE

On your way to or from the Keys, enjoy our year round tropical paradise with balmy breezes and crystal blue waters. For many there is more fun under our waters than on the land. The ocean is alive with sealife surrounding the many artificial reefs, such as the famous Mercedes I, sent to rest directly off our coast, and America's only living coral reef.

After you've surfaced, you'll find our nights sizzle with dancing, top name entertainment and a vast selection of restaurants to please any taste and pocketbook.

Friendly hoteliers are waiting to welcome you with accommodations ranging from efficiency apartment motels to 5 Star resort hotels.

Call or write for rate information and a free brochure with information on where to stay and where to play.

HOTEL & MOTEL ASSOCIATION BROWARD COUNTY

1212 N.E. 4th Ave., Ft. Lauderdale
FL 33304 U.S.A. (305) 462-0409
In cooperation with the
Broward County Tourist Development Council.

and ends at a depth of more than 100 feet. It's a low profile reef and barrel sponges grow throughout. In the shallow grass beds the beautiful and formerly collected pink queen conch and other shells are common. However, conchs are now protected by state law. Taking them may result in a stiff fine from the Florida Marine Patrol.

Coffin's Patch is a conglomerate of six reefs that have various areas where elkhorn, staghorn and brain corals grow.

The wreck of the ***Thunderbolt*** was recently sunk as an artificial site south of Vaca Cut near Marathon. Also sunk by the Artificial Reef Committee and other government agencies, the wheelhouse of the 190 foot ship is in 70-75 feet of water.

LOWER KEYS

Near Big Pine Key, **Looe Key** is one of the most beautiful reefs in the state. Named for the HMS *Looe*, a frigate that sank here in the 1700s, it is no longer an island as was described by the ship's surviving crew. At the lowest of low tides, a small sandy patch sometimes rises out of water, but it is nothing close to the place that sheltered the men of the *Looe* from Indians.

The reef runs from a shallow grass flat to depths of more than 100 feet. It is well populated with every type of coral found in the Keys including massive brain and stately elkhorn growths. It is now a marine sanctuary; collecting and spearing are prohibited.

One of the most popular dive spots near Key West is **Sand Key**. With depths ranging from less than 10 to more than 65 feet, this reef is also marked by a lighthouse on a small cay made up of ground shells and coral. Gulleys and coral fingers run through large areas of staghorn and elkhorn coral.

The wreck of the ***Cayman Salvage Master*** also rests near Key West. Sunk more by accident than design, the 180 foot plus ship sits on the sand at 90 feet and rises to a depth of 50 feet. Originally destined to be sunk in deep water as an artificial reef, she became a dive site when she sank in the wrong place.

Western and **Eastern Dry Rocks** reefs drop to depths of more than 100 feet. Western has several open ended caves similar to those found in Pennekamp. Depending on the season you may also be lucky enough to see a shark or two at these sites.

Western, **Eastern** and **Middle Sambo Reefs** are similar to the Dry Rocks with depths averaging less than 35 feet. Middle Sambo is considered one of the best lobstering spots in the lower keys.

CONCLUSION

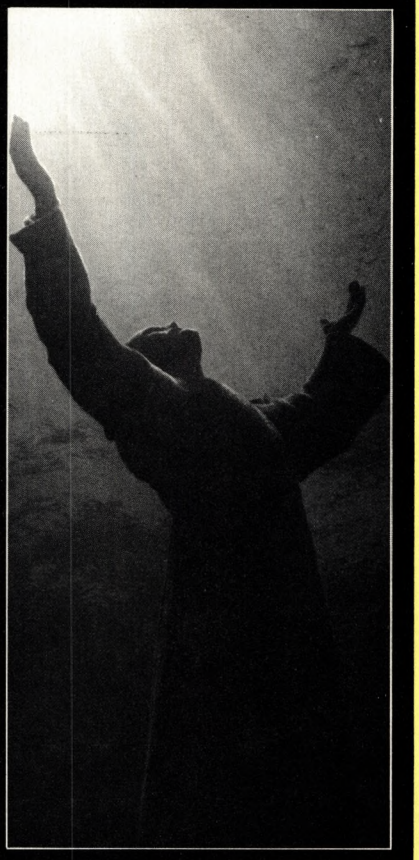
From the emerald waters of the Panhandle, to the crystal clear waters of the spring country, all the way down to the blue waters of the Gold Coast and Keys, Florida has plenty of diving and vacation adventure for you and your family. It is estimated that more than one-half million divers dive somewhere in the state every year. Florida: It's the Sunshine State. Come on down and gather up some for yourself!

ADDITIONAL INFORMATION

For an informative Florida Vacation Guide listing most of the state's tourist attractions send $2.50 to:

Florida Division of Tourism
Visitor Inquiry Section
126 Van Buren St.
Tallahassee, FL 32301

We Were In Pennekamp Before Christ!



That's right! The world famous Christ of the Abyss Statue came to John Pennekamp Park, America's #1 dive destination, in 1963. American Diving Headquarters was already serving Key Largo divers a year earlier!

The most experienced diver's service in the Keys, that 25 years has given us plenty of time to develop our special way of making sure you have fun. In fact, at American Diving Headquarters we're so sure you'll like our style, we guarantee it!

If you're not happy, we're not happy and it won't cost you a dime. On any of our charters, if you don't like the sea, visibility, or anything else about your dive day, just stay on board. You'll receive a full refund as soon as we get back to the dock!

WHY? Because we want you to keep coming back.

Ask anybody else in the Florida Keys if they'll treat you that good. Bet you can't find just one! American Diving Headquarters for 25 years, the only place in the Florida Keys where you're guaranteed to have fun diving!

Serving divers in Key Largo before 1 B.C.*

Harry Keitz's

★ *AMERICAN Diving Headquarters*

Call Us Toll Free For Charters,
Dive Packages And Hotel Information;

1-800-634-8464

In FL: (305) 451-0037, Miami 246-1252
P.O. Box 1250, Key Largo, FL 33037

* BC's weren't invented until 1970

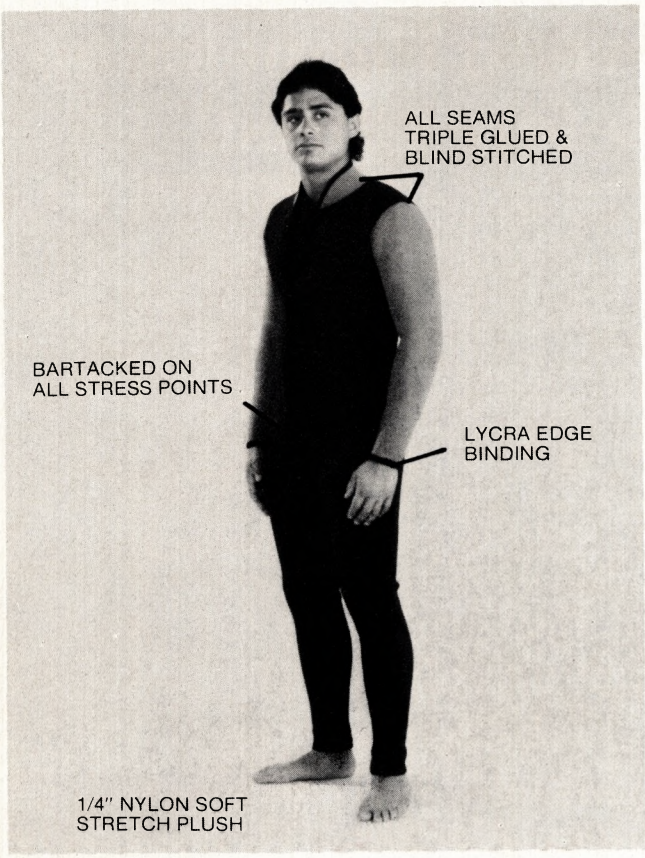


PUT THE *ADVENTURE* BACK IN DIVING

DEEP WRECK DIVING HDQS.
3 Days/2 Nights/4 Dives

DAYS INN $139 EMBASSY SUITES HOTELS $195

Adventure Divers
923 SE 20th St., Ft. Lauderdale, FL 33316
305-523-8354





1/4" nylon plush soft stretch Farmer John and Beavertail Jacket

~~$199.95~~ **$149.95**

Full Lycra action body suit with or without zipper

~~$59.95~~ **$39.95**

Introducing ZETA 2000 Diving Line
Limit 3 items per customer, no dealers please

If you have hesitated in buying a high quality wet suit because of their $300 $400 price range, here's your chance to get a top quality 1/4" soft stretch plush wetsuit with **Beaver Jacket and Farmer John for only $149.95. We guarantee you'll love it or your money back.**

Also, if you've wanted the latest in Lycra body suits you can **save $20 to $50 by ordering yours from us for only $39.95.**

Why such a good price?

Because we manufacture and sell direc to you. If you are a runner, a cyclist, a licensed downhill or a G.S. skier, you probably know the quality, durability and value of our **ZETA 2000** products. And if you're in a high school or college team you've already saved tons of money buying the **ZETA 200** products from **Sports Europa.** If you are not any of the above, yet, here's your chance **to save and get top qual-diving wear, with guaranteed satis-faction or your money back.**

The 1/4" Nylon plush wet suit

This is the real thing Nylon plush. It's soft and stretchy; all seams are triple glued and blind stitched. Has Lycra edge binding and all stress points are bartacked (reinforced seams). If you don't know in detail exactly what this means; it means that this is really a top quality suit. We promise you a great fit in your Farmer John & Beavertail Jacket.

The Lycra action body suit

Used under your wet suit or by itself in warmer water, these suits provide a warm protection from coral cuts, jelly fish stings, abrasion and sunburn. Also, they make you look great while pro-viding full freedom of movement.

Unlike most others, the ZETA 2000 action body suits are made with Dupont 4 way stretch Lycra.

Hurry, now's your chance!

Lycra action body suits:
Cross Chest Model:
color: black with red, yellow or blue stripe.
Front Zip Model: black, red or blue with contrasting shoulder panels. sizes: small, medium, large.

Wetsuits: call for colors and size

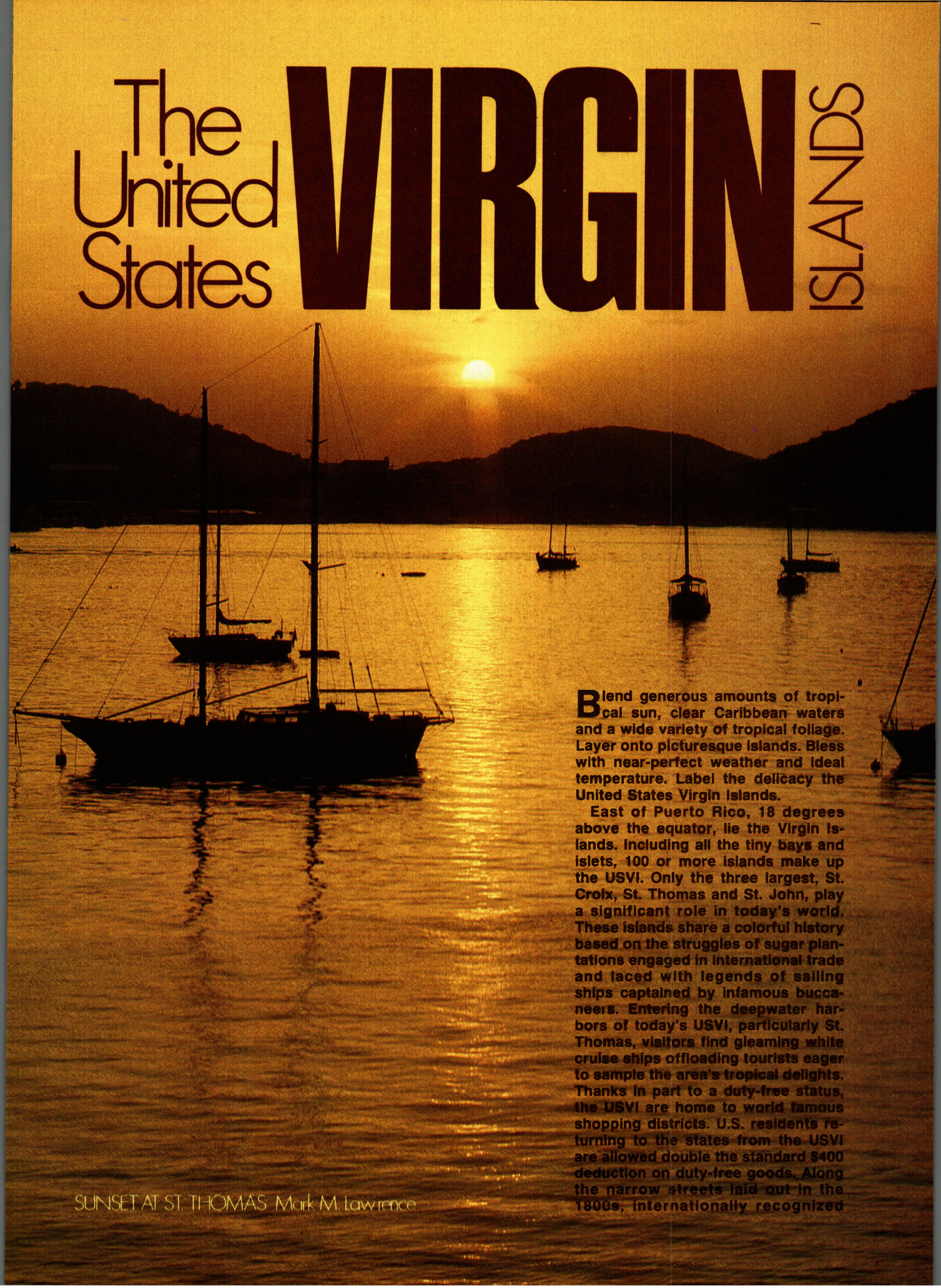
Call Now!
Toll Free
1-800-327-7031
In Fla. (305) 821-4000
Mon.-Fri. 9:30 AM to 10:00 PM
Sat. 10:00 AM to 6:00 PM
or send Check or Money Order to:

VISA · master charge · AMERICAN EXPRESS

Sport Europa

4557 S.W. 71st Ave.
Miami, FL 33155

The United States VIRGIN ISLANDS



SUNSET AT ST. THOMAS Mark M. Lawrence

Blend generous amounts of tropical sun, clear Caribbean waters and a wide variety of tropical foliage. Layer onto picturesque islands. Bless with near-perfect weather and ideal temperature. Label the delicacy the United States Virgin Islands.

East of Puerto Rico, 18 degrees above the equator, lie the Virgin Islands. Including all the tiny bays and islets, 100 or more islands make up the USVI. Only the three largest, St. Croix, St. Thomas and St. John, play a significant role in today's world. These islands share a colorful history based on the struggles of sugar plantations engaged in international trade and laced with legends of sailing ships captained by infamous buccaneers. Entering the deepwater harbors of today's USVI, particularly St. Thomas, visitors find gleaming white cruise ships offloading tourists eager to sample the area's tropical delights. Thanks in part to a duty-free status, the USVI are home to world famous shopping districts. U.S. residents returning to the states from the USVI are allowed double the standard $400 deduction on duty-free goods. Along the narrow streets laid out in the 1800s, internationally recognized







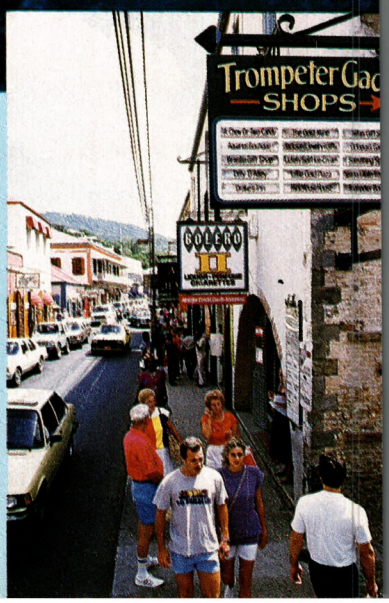
U.S. VIRGIN ISLANDS-A Smorgasbord Of



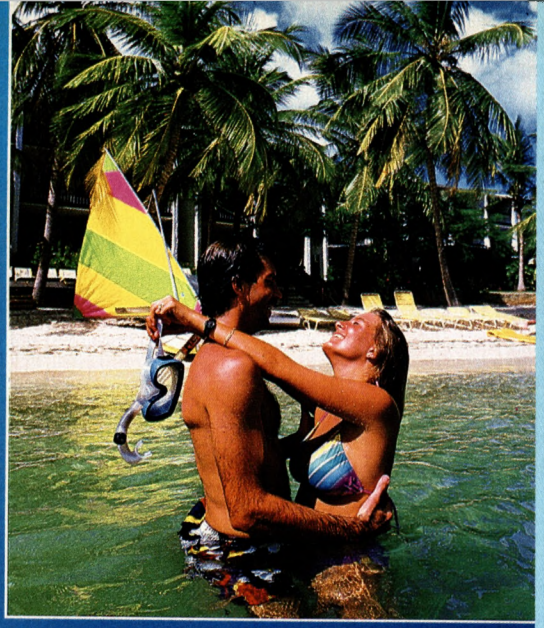






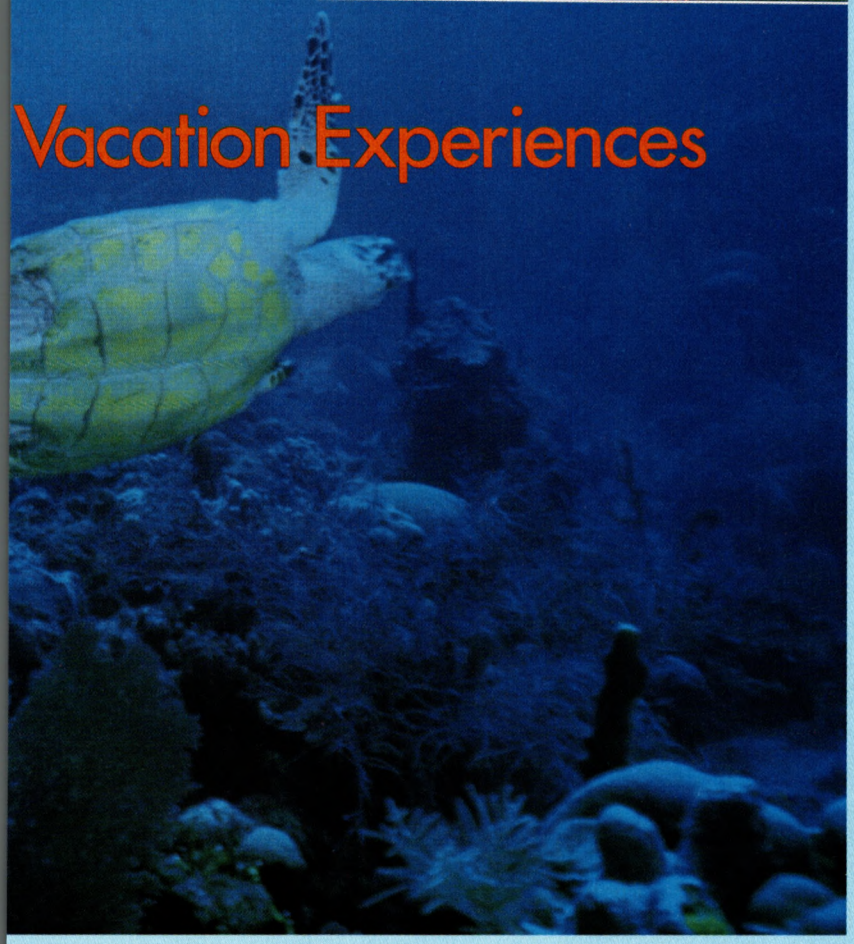








Vacation Experiences



- Eleanor Klein follows a friendly green turtle on an adventure tour of U.S. Virgin Island attractions, starting at Cane Bay off St. Croix.
- The windmill of the Estate Whim Plantation Museum on St. Croix.
- The engine room of the *Cartanser Senior* wreck off St. Thomas.
- A St. Thomas divemaster demonstrates his passion for lobsters.
- Caroline Gannon makes friends with a pet iguana at Limetree Beach on St. Thomas.
- Bolongo Bay, on St. Thomas, offers the perfect opportunity for watersports of every kind.
- Dinner at the Chart House on St. Croix—an evening to remember.
- An examination of a navigation book on the *Rosaomaira* wreck off St. Croix may provide clues to its capsizing.
- Orange crinoids and other colorful invertebrates decorate the reef at Fishbowl off St. Thomas.
- Divers ascend from a visit to the *Northwind* wreck off St. Croix.
- Touring the gift shops of downtown Charlotte Amalie, St. Thomas.

names such as Cartier and Gucci hang in store entranceways. Companies such A.H. RIISE were established when the warehouses and malls were first built.

The majority of visitors to the USVI arrive by

TEXT AND PHOTOGRAPHY BY MARK M. LAWRENCE

air. There are many nonstop flights from either New York or Miami to St. Thomas. Travelers can also fly to San Juan and catch a commuter flight to the USVI. Companies like Eastern Airlines have flights that arrive in St. Thomas and continue on to St. Croix. Crossing to St. John, or any other U.S. or British Virgin Island, is usually made by ferryboat or commuter plane. The VI Seaplane Shuttle is a fun and unusual way to travel to the other islands. There is something romantic about these twin-engine seaplanes. The lightly colored white and blue craft make frequent flights among all the major islands. By the way, while citizens returning to the U.S. from the USVI do not need a passport, many sailboats and dive operators offer day excursions to the British Virgin Islands. Even if you never set foot on land, they do require proof of citizenship.

Since St. Thomas, St. John and St. Croix are U.S. territories, there are many advantages. Both the currency and the language are the same as they are here in the States. If it plugs in at your home in the U.S., it will work here too; the USVI runs on 110 volt alternating current. There's one major difference. In the USVI, you drive on the left side of the street. It takes awhile to get used to the system, but fortunately, Virgin Island drivers are extremely courteous and forgiving.

ST. THOMAS

St. Thomas restaurants are world-renowned. The gold medal winning Fiddle Leaf serves refined French and American dishes in an elegant setting. The Hotel 1829, a national historic landmark, offers items such as rack of lamb and shrimp imperial. Saltwater aquariums decorate the Harbourfront; the menu features steaks and fresh seafood. The Chart House in Villa Olga presents a 40 item salad bar to accompany entrées such as

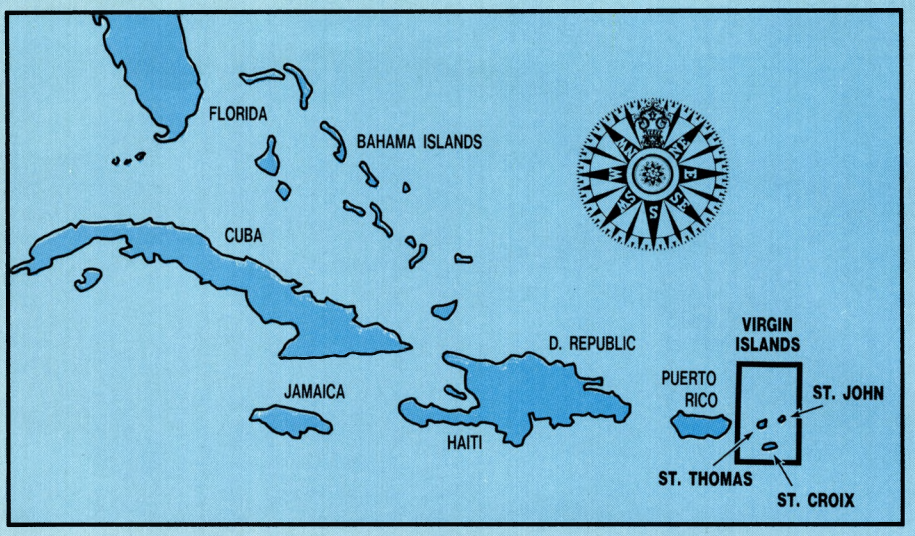
U.S. VIRGINS

prime rib and beef kabobs. By the sub base, Danny's Fishermen's Wharf cooks super seafood. In Frenchtown, the Cafe Max has daily specials such as pheasant or fresh shark. Famous, also in Frenchtown, tempts visitors with unusual items including stir-fry marlin and scallops or fresh broiled yellowtail. If you crave some good Mexican fare, try For The Birds at Scott Beach. In Red Hook, Piccola Marina Cafe serves great pasta primavera, Szechwan chicken and mesquite grilled fish. Hungry yet? These are some of St. Thomas' great restaurants.

The U.S. and British Virgin Island waters are well known cruising grounds. Because of the lay of the islands, sailboats can tour the area, never being more than a couple of miles from shore. Consequently, many people come to the Virgin Islands for their first sailing expedition. More and more divers are discovering the pleasures of mixing scuba and sailing. Chartering a yacht has some distinct advantages. The guests determine the entire schedule and pace of the trip. Once aboard a crewed yacht, you never have to lift a hand again. Since most sailboats have their own compressors aboard, divers can enjoy an unlimited range. Cooks create menus for individual tastes. Brokers such as Chris Moore at V.I. SCUBA/SAIL CHARTERS can arrange the right boat and book air fares and other related travel needs.

Variety is the key word for the USVI. Underwater enthusiasts can enjoy wrecks, reefs, walls or night dives. There is also a great selection of topside activities and attractions. Beaches such as Magens Bay on St. Thomas have been rated among the top ten in the world. The natural beauty of the USVI is so striking these islands are often the choice for major motion picture work. This setting is undoubtedly part of the reason why so many couples honeymoon here. Even the Virgin Island wildlife seems friendly. St. Thomas' Limetree Beach Hotel has all the modern conveniences and one prehistoric attraction. In exchange for a taste of a red hibiscus flower, tame iguanas will pose for pictures. The islands' official bird is the yellow breasted banana quit. These nervous little birds dart into open air restaurants to steal bits of sugar or jam from the tables.

Active types will enjoy golf courses, such as MAHOGANY RUN. BOLONGO BAY BEACH & TENNIS CLUB exemplifies how some resorts offer vacationers many alternatives. Owners Dick and Joyce Doumeng have brought together a myriad of activities to entertain divers and



ST. THOMAS RESORTS AND HOTELS (with dive packages)

Bolongo Bay Beach & Tennis Club
P.O. Box 7337
St. Thomas, USVI 00801
(809) 775-1800

Carib Beach Hotel
P.O. Box 340, Lindberg Bay
St. Thomas, USVI 00801
(800) 221-4588

Frenchman's Reef Beach Resort
P.O. Box 7100, Charlotte Amalie
St. Thomas, USVI 00801
(809) 774-8500

Limetree Beach Hotel
P.O. Box 7307
St. Thomas, USVI 00801
(809) 776-4770

Magens Point Resort Hotel
Magens Bay Road
St. Thomas, USVI 00802
(800) 524-2031

Point Pleasant Resort
Estate Smith Bay
St. Thomas, USVI 00802
(800) 524-2300

Ramada Yacht Haver Hotel & Marina
P.O. Box 7970
St. Thomas, USVI 00801
(809) 774-9700; (800) 524-7877

Sapphire Beach Resort
P.O. Box 8088
St. Thomas, USVI 00801
(809) 775-6100; (800) 524-2090

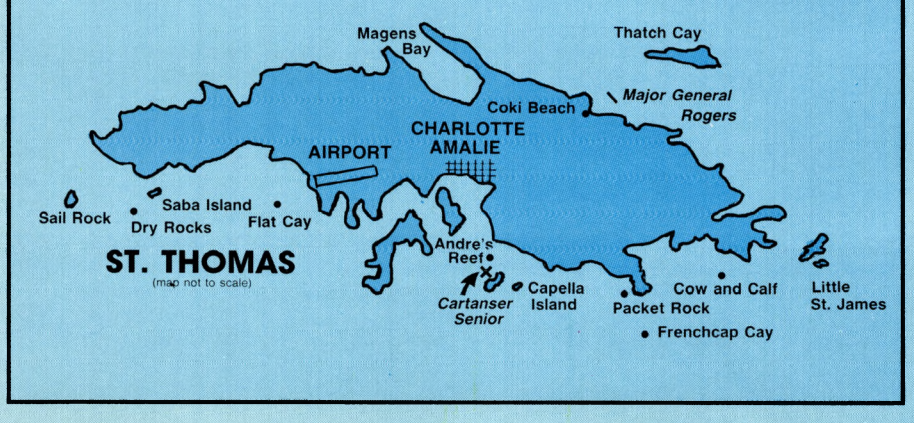
Secret Harbor Beach Hotel
P.O. Box 7576
St. Thomas, USVI 00801
(809) 775-6550

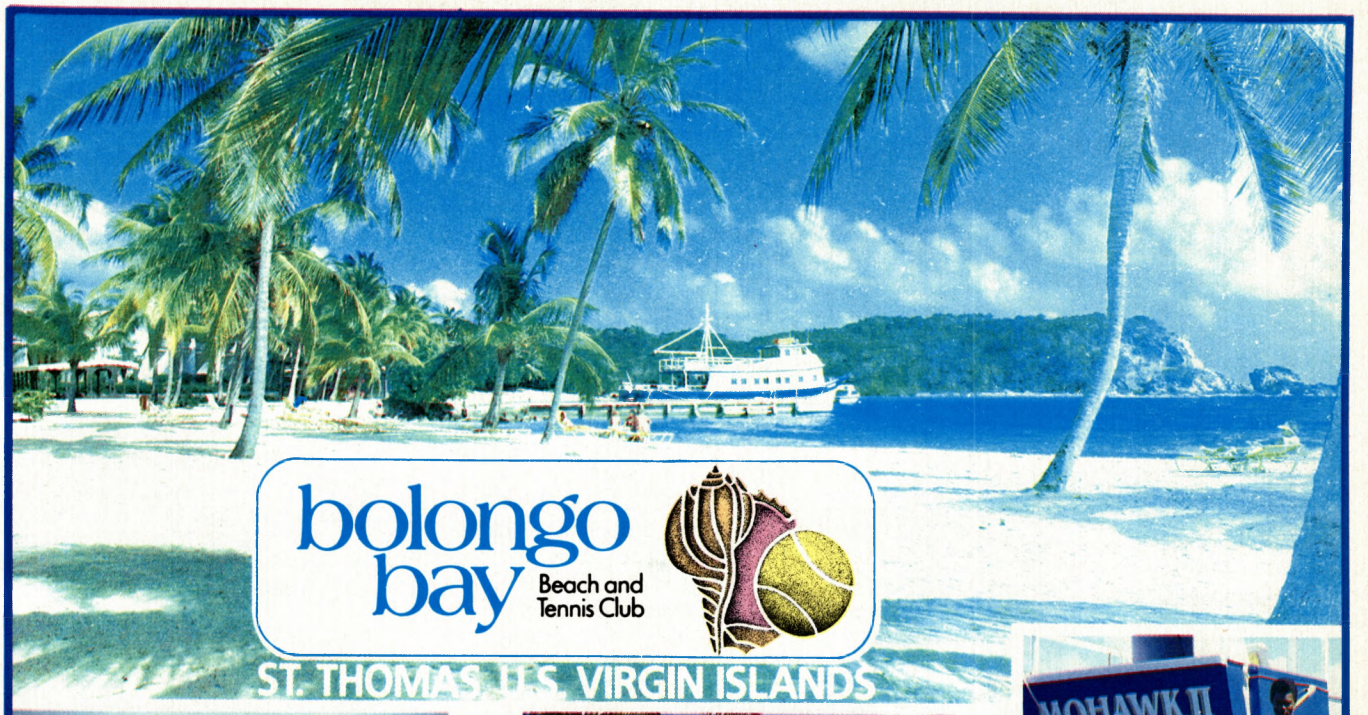
Villa Olga
P.O. Box 4976
St. Thomas, USVI 00801
(809) 774-1376

Windward Passage Hotel
P.O. Box 640
St. Thomas, USVI 00801
(809) 774-5200; (800) 524-7389

Wyndham Virgin Grand Beach Hotel
P.O. Box 8267
St. Thomas, USVI 00801
(800) 822-4200
(800) 631-4200 in Canada

The U.S. Virgin Islands are just east of Puerto Rico. Charlotte Amalie, the capital city, is on St. Thomas and there are direct flights from the U.S. to that island.





bolongo bay Beach and Tennis Club

ST. THOMAS U.S. VIRGIN ISLANDS







St. Thomas Diving Club at bolongo bay A DIVERS RESORT

ALL OF THIS... AND DIVING... AND MOHAWK TOO!

For the past 8 years, Bolongo has been known as the beachfront resort that's always full. And we're proud to say that's true! So, we've doubled our size (added 45 rooms) and can now invite you to see why we've consistently run the highest occupancy in the Caribbean. In addition to the new rooms, we've totally refurbished the "old" rooms, added a second restaurant by our 4 tennis courts, built a new dive center and added a meeting room for groups. To insure our continued success, we still include Continental breakfast in our room rate, free Sunfish sailing, use of snorkel gear, an all-day sail to St. John, use of tennis courts, plenty of Caribbean sun and one of the friendliest staffs you'll ever encounter. Windsurfing and Aquabiking are also available at our 1,000′ beach. As for diving, one of our 4 dive boats (ranging in size from 25′ to 68′) departs from our very own dock. A total vacation . . . with diving, too!

All rooms are luxury beachfront units with kitchenettes, air-conditioning, color cable TV, telephones and private balconies.





8 days/7 nights
From $705.00 Diver
455.00 Non-Diver

MOHAWK II DIVE VESSEL - QUALITY MEETS QUALITY!

One of the world's most luxurious, live-aboard dive vessels is now at our Bolongo Bay Club dock. Combine our first-class hotel with this first-class ship . . . for your first-class holiday. All staterooms are air-conditioned, private twin accommodations.

Dive both the U.S. and British Virgin Islands, including the Rhone.



P.O. Box 7337
St. Thomas, V.I. 00801

For information, call Toll Free **800-524-4746.**

U.S. VIRGINS

nondivers alike. As the name suggests, the Bolongo Bay Beach & Tennis Club has several well-maintained courts. They also have lighted courts. Their tennis pro, Steve Hardin, is always available for lessons, consultations or a great challenge. The tennis shop and boutique is always stocked full of equipment and clothing. Bolongo Bay also has sailboats, paddle tricycles and floats on the beach. The St. Thomas Diving Club headquarters in Bolongo Bay offers a "land and sea" vacation in which divers divide their stay between the hotel and the live-aboard yacht, *Mohawk II*.

AIRLINES SERVING THE USVI

Direct Flights to St. Thomas

From Miami:
Eastern (800) 327-8376
Pan Am (800) 221-1111
Midway (800) 621-5700

From New York:
American (800) 443-7300
Pam Am (800) 221-1111

From Dallas:
American (800) 443-7300

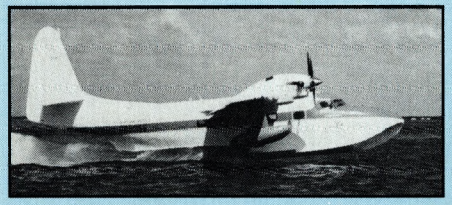
Flights to San Juan available from Dallas, Miami, Chicago, Atlanta, New York, Boston, Philadelphia, Baltimore and St. Louis.

Commuter Airlines
San Juan to St. Thomas

Eastern Metro Express (800) 327-8376
Aero V.I. (809) 774-5000
Crown Air (800) 468-2031
Virgin Air (809) 776-2722
V.I. Seaplane Shuttle (800) 524-2050
American Eagle (800) 433-7300



Eastern Airlines flies nonstop from Miami to St. Thomas. The V.I. Seaplane Shuttle connects to St. Croix and St. John.



All these activities are just a few steps away from the beachfront rooms. FRENCHMAN'S REEF BEACH RESORT offers tennis and other attractions, including scuba, sailing and a glass bottom boat, all managed by Sea Adventures. The WYNDHAM VIRGIN GRAND on Water Bay is the newest member of the full service resort set. Its diving operation has been turned over to the experienced hands of Chris Sawyer. The Wyndham's dramatic style complements the service and luxury it offers.

On St. Thomas, as well as on the other USVI, the dive operators usually maintain one central base but serve guests in several hotels. All offer instruction from introductory to divemaster levels. VIRGIN ISLAND DIVING SCHOOLS/SUPPLIES, INC. has developed a special knack for running the introduction to scuba programs for the cruise ships. Some organizations take exclusive advantage of the great local beach diving. Most operations that run dive boats also run charters to the BVI. Many such companies gladly arrange for sportfishing and sailing or snorkeling trips, too. The key word is variety. The dive operators in these islands pride themselves on being able to offer a variety of services and take guests to a wide range of dive sites.

In many ways CHRIS SAWYER DIVING CENTER typifies the island operator. Sawyer is friendly, knowledgeable and appears to genuinely enjoy dealing with tourists. His primary facility is at Compass Point. He recently opened a second store and boutique at the Wyndham Virgin Grand Beach Hotel. Sawyer's staff includes NAUI and PADI instructors. The five instructors offer the full range of specialties. In addition to daily two tank morning and one tank afternoon trips, Sawyer also runs night dives and excursions to the *Rhone* in the BVI. The primary boat, the 42 foot *Fool's Gold*, is spacious. Although it's certified for 15 passengers, Chris runs it with no more than eight guests. The operation is geared toward giving personal attention to individuals and small groups. Diving with Chris is a true pleasure.

The ST. THOMAS DIVING CLUB has centered its operations at Bolongo Bay Beach & Tennis Club. STDC also serves VILLA OLGA HARBOR HOTEL, POINT PLEASANT RESORT and LIMETREE BEACH HOTEL. Manager Andre Webber coordinates scheduling of the STDC motor vessels *Diver I* and *Diver II*. Each Delta can carry 12 passengers. Pam Balash oversees the instructional programs. As a PADI course director, she can certify all levels of divers up to instructor prep. At the time of this writing, STDC was awaiting the arrival of a new 40 foot dive boat.

AQUANAUTICS WATERSPORTS provides service to MAGENS POINT RESORT HOTEL and CARIB BEACH HOTEL. Tropic Tours books Aquanautics in several other hotels. A NAUI pro and training facility, Aquanautics offers several certification and specialty courses from the introductory level on up. Presently, the operation maintains four vessels. Although one is intended for large groups, two smaller boats carry a maximum of six passengers each. It is owner Jerry Henderson's goal to be able to serve both groups and individuals equally well.

Ed Kwadas directs SEA ADVENTURES operations. Handling the needs of WINDWARD PASSAGE HOTEL and French-

ST. THOMAS DIVE OPERATORS

Aqua Action, Inc.
P.O. Box 12138
St. Thomas, USVI 00801
(809) 775-6285

Aquanautics Watersports
P.O. Box 4293
St. Thomas, USVI 00801
(809) 776-0382/776-4218

Caribbean Divers
Red Hook
St. Thomas, USVI 00802
(809) 775-6384

Chris Sawyer Diving Center
At Compass Point
41-6-1 Estate Frydenhoj
St. Thomas, USVI 00801
(809) 775-7320

Chris Sawyer Diving Center
At Wyndham Virgin Grand
Wyndham Virgin Grand Beach Hotel
Smith Bay
St. Thomas, USVI 00802
(809) 775-1510, ext. 100

Joe Vogel Diving Company
P.O. Box 7322
St. Thomas, USVI 00801
(809) 775-7610

Sapphire Watersports Center
P.O. Box 2432
St. Thomas, USVI 00801
(809) 775-6755

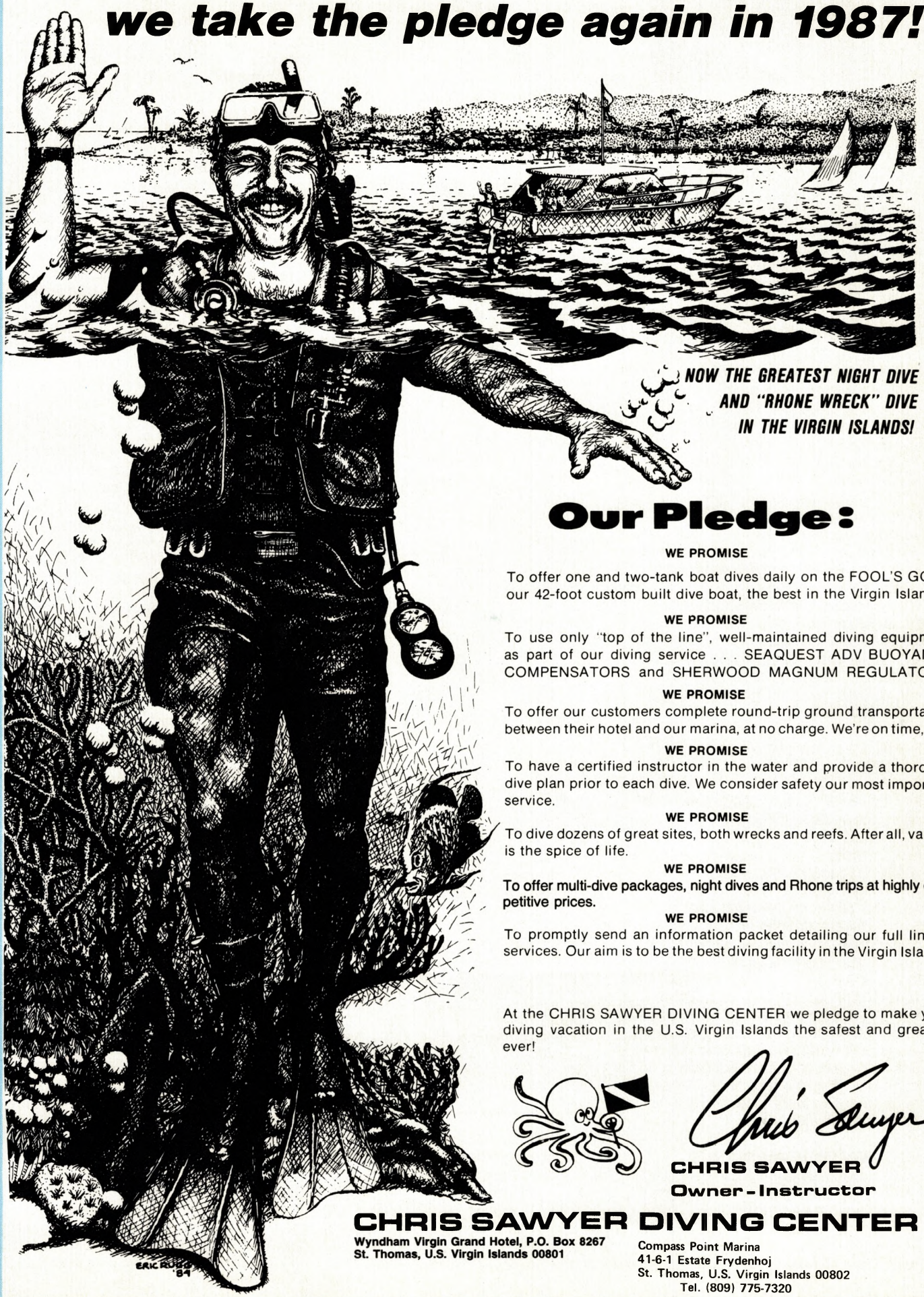
Sea Adventures
P.O. Box 9531
St. Thomas, USVI 00801
(809) 774-9652; (800) 524-2096

St. Thomas Diving Club
(*Mohawk II*)
P.O. Box 7337
St. Thomas, USVI 00801
(809) 775-1800

Underwater Safaris of St. Thomas
P.O. Box 8469
St. Thomas, USVI 00801
(809) 774-1350

Virgin Island Diving Schools/Supplies, Inc.
P.O. Box 9707
St. Thomas, USVI 00801
(809) 774-8687/774-7368

At the Chris Sawyer Diving Center we take the pledge again in 1987!



NOW THE GREATEST NIGHT DIVE AND "RHONE WRECK" DIVE IN THE VIRGIN ISLANDS!

Our Pledge:

WE PROMISE

To offer one and two-tank boat dives daily on the FOOL'S GOLD, our 42-foot custom built dive boat, the best in the Virgin Islands.

WE PROMISE

To use only "top of the line", well-maintained diving equipment as part of our diving service . . . SEAQUEST ADV BUOYANCY COMPENSATORS and SHERWOOD MAGNUM REGULATORS.

WE PROMISE

To offer our customers complete round-trip ground transportation between their hotel and our marina, at no charge. We're on time, too!

WE PROMISE

To have a certified instructor in the water and provide a thorough dive plan prior to each dive. We consider safety our most important service.

WE PROMISE

To dive dozens of great sites, both wrecks and reefs. After all, variety is the spice of life.

WE PROMISE

To offer multi-dive packages, night dives and Rhone trips at highly competitive prices.

WE PROMISE

To promptly send an information packet detailing our full line of services. Our aim is to be the best diving facility in the Virgin Islands.

At the CHRIS SAWYER DIVING CENTER we pledge to make your diving vacation in the U.S. Virgin Islands the safest and greatest ever!

Chris Sawyer

CHRIS SAWYER
Owner - Instructor

CHRIS SAWYER DIVING CENTER

Wyndham Virgin Grand Hotel, P.O. Box 8267
St. Thomas, U.S. Virgin Islands 00801

Compass Point Marina
41-6-1 Estate Frydenhoj
St. Thomas, U.S. Virgin Islands 00802
Tel. (809) 775-7320

U.S. VIRGINS

man's Reef Beach Resort involves many people. Sea Adventures instructors represent NAUI, SSI and PADI. The group easily handles requests for introduction to scuba and specialty programs. At its Frenchman's Reef Beach Resort headquarters, Sea Adventures moors its fleet of sail, snorkel and dive boats. Ed schedules the day's sailing and sightseeing trips as well as the diving charters. For individuals and small groups, Sea Adventures runs the 26 foot *Thunder*. Large groups (up to 20 divers) play on the 40 foot *Siren*. The glass bottomed *Siren* has a soda dispenser and a head.

From the RAMADA YACHT HAVEN HOTEL & MARINA one views tall cruise ships to the left and Charlotte Amalie to the right. The marina's central complex of stores is home to UNDERWATER SAFARIS of St. Thomas. Underwater Safaris works closely with the Ramada to set up dive/hotel packages. Not only can Underwater Safaris arrange scuba trips, but it also offers full and half day sailing charters and snorkeling trips.

The SAPPHIRE WATERSPORTS CENTER at Sapphire Beach Resort charters two dive boats. Manager Fred Williams is personable and well informed. The 32 foot *Stormy Petrel* handles six passengers; groups travel on the 42 foot *Sea Trek*. AQUA ACTION'S two dive boats, the 23 foot, six passenger *Amewzing* and 27 foot, 14 passenger *Nina*, leave from the SECRET HARBOR BEACH HOTEL. Aqua Action, Inc. also caters to several other hotels. Manager Julie Wank takes great pride in the enthusiasm of her staff. Aqua Action offers PADI and SSI certification courses.

Dave Fredebaugh's CARIBBEAN DIVERS works from Red Hook. Dave's Bertram, the *Different Drummer*, holds six divers. Dave's philosphy of diving revolves around personal attention; Caribbean Divers tailors its dive schedule to the individual.

Joe Vogel of JOE VOGEL DIVING COMPANY has been diving St. Thomas for more than 26 years. During that time he has built up quite a following. He imparts a sense of caring and confidence to his guests. This pioneer of St. Thomas diving still looks forward to showing visitors his underwater world.

ST. THOMAS DIVING

When discussing St. Thomas diving, mention must be made of the recompression chamber at the St. Thomas Hospital. Many people donated their time and effort to bring it into operation. Such facilities are rare. Follow the safe diving practices promoted by all USVI dive operators and hopefully you won't have a ride in the St. Thomas chamber.

There are scores of great dive locations around St. Thomas. Whether you prefer beach or boat diving you have many good choices. The quality of the diving is impressive. Wrecks, shallow reefs and deep drop-offs all lie within easy reach. The following list highlights only some of the better known sites.

USVI TOURISM OFFICES

Chicago
343 S. Dearborn Street
Suite 1108
Chicago, IL 60604
(312) 461-0180

Los Angeles
3450 Wilshire Boulevard
Los Angeles, CA 90010
(213) 739-0138

Miami
7270 NW 12th Street
Suite 620
Miami, FL 33126
(305) 591-2070

New York City
1270 Avenue of the Americas
New York, NY 10020
(212) 582-4520

Washington, D.C.
1667 K Street NW
Suite 270
Washington, D.C. 20006
(202) 293-3707

St. Croix
P.O. Box 4538
Christiansted, USVI 00820
(809) 773-0495
Custom House Building
Strand Street
Frederiksted, USVI 00840
(809) 772-0357

St. John
P.O. Box 200
Cruz Bay, USVI 00830
(809) 776-6450

St. Thomas
P.O. Box 6400
Charlotte Amalie, USVI 00801
(809) 774-8784

Canada
234 Eglinton Avenue East
Suite 306
Toronto, Ontario M4P 1K5
(416) 488-4374

Off the western end of St. Thomas, **Sail Rock** stands alone. Currents around it sweep in schools of large fish. These conditions, however, make this spot an experienced diver's site. Underwater, the nearly vertical face plunges past 80 feet. Along the way the sturdy hard corals near the surface yield to gorgonians and other soft corals.

Also offshore, but close to Charlotte Amalie, lies **Saba Island**. The shallow reefs average 25 to 30 feet. With little to no current and good visibility, the area is a fine choice for beginning divers.

Another great location for new and intermediate divers is **Flat Cay**. In less than 40 feet there are numerous ledges of elkhorn stands. Patches of red and gold encrusting growth heighten the ledges. Copper sweepers hover in caves. The broken remains of a steel hulled schooner create interesting picture possibilities.

St. Thomas' **Little Buck Island** has several good sites. In a protected cove, the 190 foot long freighter, ***Cartanser Senior***, rests in less than 50 feet of water. Doorways, hatches and winches are very photogenic. Look among the decaying deck planks to spot comical lizardfish. Yellowtail snapper greet arriving divers and are always looking for a handout. No wonder this has become one of the best known dive sites on St. Thomas.

Little Buck Island also has **Andre's Reef**. The interesting rock formations slope down from 40 to 80 feet. The location is good for beginners and has enough marine life to entertain more experienced visitors as well.

Moving east from Little Buck Island, the next area is **Capella Island**. Another well known location, Capella has abundant animal life. This sloping reef begins in 35 feet and continues to 80. Keep an eye out for lobster.

Near Bolongo Bay, the wooden hulled ***Warrwick*** ran into **Packet Rock**. In the 35 or 40 foot depths divers still run across pieces of clay pipes, tile or china.

Another isolated rise that offers great diving is **Frenchcap Cay**. Some divers report visibility in excess of 150 feet. Elkhorn stands in 40 feet are known as the Cathedrals. Basket and tube sponges decorate the drop-off.

Cow and Calf's two exposed rocky crests actually connect U/W. Shallow crevices and tunnels dissect the rocks. As with many locations, encrusting corals and sponges color the undersides of these caves. Schooling fish cluster here.

Like many of the other islands, **Little Saint James** has several interesting features. This is one of a group of islands off the southeast end of St. Thomas. On the northern side in 40 feet divers can find lots of tropicals among the soft corals. On the south side, in a site called **Palmer's Cove**, fish school around the large rock formations. Visibility is usually good in 45 feet of water.

Offshore the Virgin Grand on the scattered coral heads and sand flats of St. Thomas sits the ***Major General Rogers***. This 150 foot steel ship was sunk upright in 80 feet of water. Lavender tunicates grow in clusters everywhere. A small rock hind guards the encrusted propeller and rudder. Experienced divers should

have little problem with the current.

The largest island in a chain that stretches between St. Thomas and St. John is **Thatch Cay**. Along Thatch Cay's northern face the vertical rock formations start as shallow as 25 feet. In places they make a series of small steps down to more than 60 feet. On the west side, there's a colorful tunnel. An interesting variety of fish mingle around Thatch Cay.

Coki Beach may be the best known beach dive in St. Thomas. Many people enjoy their first scuba experience here. From the beach the sand gradually descends to 25 feet. The steeply sloping reef reaches 50 feet in places. Chris Sawyer has made friends with a tailess stingray called Sugar Ray.

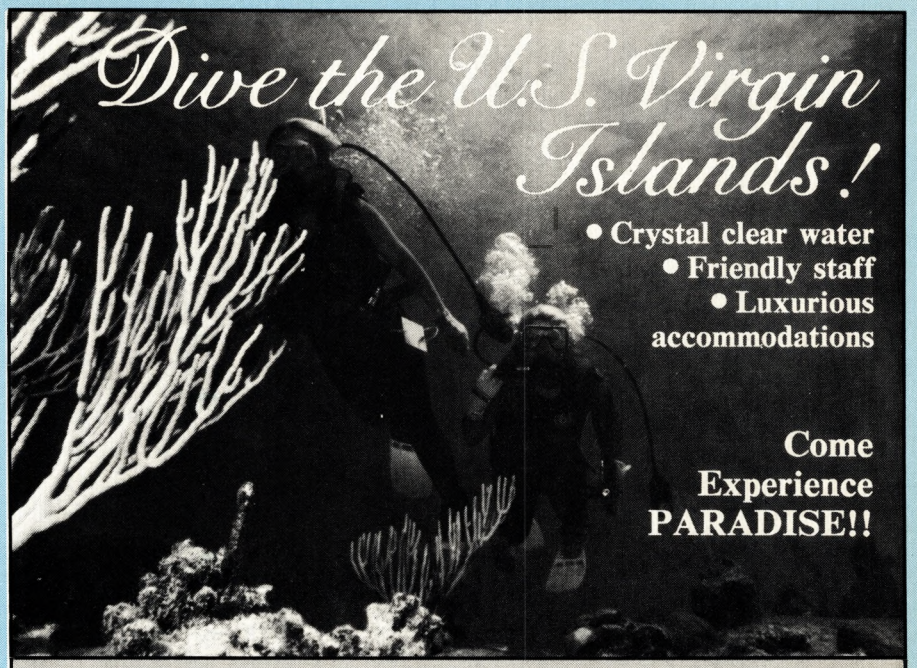
ST. JOHN

St. Thomas' neighbor, St. John, is the smallest of the three main islands. In fact, St. John is only nine miles long and five miles wide. As with St. Thomas, numerous small cays and islets surround this island. By donating two-thirds of the island to the National Park Service in 1956, Laurence Rockefeller effectively guaranteed St. John will remain unspoiled and tranquil. Life here is truly laid back.

Most people and supplies arrive on St. John by ferry. After departing Red Hook, St. Thomas, the swift inter-island ferries cross to St. John's Cruz Bay in 20 minutes. The ferryboats and the VI Seaplane Shuttle periodically run from Charlotte Amalie to Cruz Bay.

St. John has 21 hiking paths. One of the best known, the Reef Bay Trail, wends its way past ruins and petroglyphs down to a pair of secluded beaches. As with most trails, markers identify unusual flora along the way. Trunk Bay has an underwater trail for snorkelers. Visitors who enjoy camping usually stay at either the CINNAMON BAY CAMPGROUND or MAHO BAY CAMPS. Maho Bay Camps has received recognition for the design of its facilities, which protect and blend into the natural environment. Cinnamon Bay conveniences include bath houses, a commissary and cafeteria. Bob Conn's M/V *Cinnamon Bay* picks up passengers at Cinnamon Bay Campground's beach. Twelve divers can ride comfortably aboard the 42 foot craft. CANEEL BAY was built on the grounds of an old plantation. For years it has been the standard for tropical luxury. When guests' attention turns from the fine food, tennis and sailing on Caneel Bay, Bob Carney is ready to take experienced or novice divers U/W. Carney and his staff at PARADISE WATERSPORTS run two boats, the *Jumbi Jay* and the *Privateer*. Taking out only six divers at a time, they keep their schedules flexible and service level high.

In the village of Cruz Bay, there are two more dive operators. ST. JOHN WATERSPORTS, INC. maintains its attractive storefront in Mongoose Junction and offers PADI sanctioned training. In addition



Underwater Safaris
(809) 774-1350
Water Sports Center

RAMADA
YACHT HAVEN
HOTEL & MARINA

YACHT HAVEN MOTEL AND MARINA
P.O. Box 8469, St. Thomas, U.S. Virgin Islands 00801
For reservations call 1-800-2-Ramada, your travel agent or the hotel direct. P.O. Box 7970, St. Thomas, U.S.V.I. 00801 (809) 774-9700, Telex 3470072 YOTHVN
*Marina operated by Eastgate Realty Corporation

A COMPLETE DIVING RESORT
• Beachfront Hotel Rooms & Marina-View Apartments.
• Gourmet Restaurant, Bar, Entertainment.
• Sailing, Windsurfing, Superb Beach and . . .

THE FINEST DIVING IN THE VIRGINS
• East End location provides quick access to a variety of dive sites to suit every taste and experience level.
• Wreck dives including H.M.S. Rhone. Night dives.
• Beginner Instruction. Certification. Check-out dives.
• Hotel/Dive Packages Available.

WATERSPORTS CENTER at SAPPHIRE BEACH RESORT
P.O. Box 8088
St. Thomas, U.S.V.I. 00801
(800) 524-2090
Sapphire Beach Resort & Marina

DIVE the Virgins
Daily Scuba tours for beginners & experts
All equipment & refreshments included
Group discounts • Other island tours
Sailing/Snorkeling trips • Car rentals
Hotel/Dive packages
CALL TOLL FREE
1-800-524-2096
ST. THOMAS, U.S. VIRGIN ISLANDS
Reef Divers
DIVE WITH THE FUN PROFESSIONALS!

Sail and Dive the Virgins
on your chartered yacht.
UNLIMITED DIVING!
DELUXE STATEROOMS
GOURMET MEALS OPEN BAR
WINDSURF - WATERSKI
ALL GEAR PLUS COMPRESSOR
8 DAYS/PER PERSON
$700 - $900
PLUS AIRFARE
CALL FREE TO VIRGIN ISLANDS
800 524-2005
VIRGIN ISLANDS Scuba/Sail CHARTERS
Box 10966 • St. Thomas • U.S.V.I. 00801 (809) 776-2860

U.S. VIRGINS

to arranging dive excursions, they also set up snorkeling trips and day sailing. CRUZ BAY WATERSPORTS, in the heart of Cruz Bay, now has two dive boats. The 28 foot aluminum hulled *Splash* carries up to 12 divers; the newly arrived, custom-built 40 foot *Blast* can comfortably handle 20 divers. Cruz Bay Watersports offers guided reef, wreck and drift dives. PADI certified instructors teach introductory and open water courses and specialties such as night and underwater photography. Cruz Bay Watersports owners Marcus and Melody Jonnston will gladly arrange accommodations for individuals or groups with CARLA'S COTTAGES, GALLOWS POINT or SEA BREEZE VILLAS. PELICAN PEAK can help visitors find rental homes for their vacation stay.

At the time of this writing, the final touches were being administered to the VIRGIN GRAND BEACH HOTEL, planned and built by the same company that constructed the Wyndham Virgin Grand Beach Hotel in St. Thomas. The newest hotel on St. John displays the latest in contemporary style and luxury. From the huge conference center to the exotic beachside pool and waterfall, this resort design is truly grand.

ST. JOHN DIVING

The following highlights some of the sites available for divers visiting St. John.

Carval Rock is north of Cruz Bay and due west from Whistling Cay and Mary's Point. In the shallows schooling fish may be nervously watching tarpon. Dropping down 90 feet, the rocky surface becomes covered with soft corals and sponges—great locations for jacks and occasional manta rays.

To the west of Carval Rock lies **Congo Cay**. Like Carval Rock, this site has a good drop-off that turns into a slope around 90 feet. Gorgonians and sponges decorate the rocky substrate.

Just outside of Cruz Bay, **Stevens Cay** has some fine shallow diving. The reef is less than 40 feet deep and most of the interesting ledges are in 25 feet. The area has a good mixture of hard and soft corals; this is a good beginner's dive.

Close to Cruz Bay, the reef forms a curved ledge called the **Fishbowl**, an excellent shallow dive. Soft corals sway with the surge on top. Fish school in shadows under the ledges. The underside of the reef is as colorful as on St. Thomas' Flat Cay.

Along the southern side of St. John, the shelf slopes to approximately 60 feet and breaks into a more vertical wall. Cruising along the top of this wall at **South Drop**, divers may find larger deepwater fish such as amberjack.

Similar to South Drop in location and topography, **Horseshoe** crests at 60 feet and plunges to 110. This is a good area for lobsters. Rays often swim through. As with South Drop, Horseshoe is for experienced divers.

One of Marcus' favorite spots, **Green Heads** features a great assortment of hard corals, with depths averaging between 30 and 45 feet. This is also a good beginner's reef.

On the southeastern side of St. John near Coral Bay is **Eagle Shoal**, with lots of caverns, ridges and a drop from 35 to more than 80 feet.

ST. CROIX

Measuring 28 miles long and a maximum of 7 miles wide, St. Croix is the largest of the U.S. Virgin Islands. Since Columbus first visited here, at least one-half dozen countries have claimed the land. While St. Thomas emerged as a major traveling center, St. Croix's pace was a little slower. Its economic base became agriculture. Ruins of hundreds of estates are everywhere. Real estate advertisements still offer sugar mills and old plantation houses for public sale. Walking through either of the two major cities, Christiansted and Frederiksted, is a delightful experience. Near the base of Frederiksted's main pier sits Fort Frederik; it was completed in 1760. A stroll down the waterfront offers glimpses of many buildings along Strand Street that date back to the 1800s. Their thick stone walls will undoubtedly stand for a long time to come. Fort Christiansvaern guards Christiansted. The narrow winding streets surrounding the Alexander Hamilton House form the historic setting for many fine shops.

As with St. Thomas, several airlines fly jets into St. Croix's Alexander Hamilton Airport. Local commuter lines hop among many of the U.S. and British Virgin Islands. VI Seaplane Shuttle service adds its own unique flair to island crossings.

St. Croix, like St. Thomas, has many fantastic eateries. Here are notes on just some. Resorts such as The Buccaneer and Grapetree Beach Hotel have several restaurants on their premises. The Buccaneer's Brass Parrot serves gourmet dishes in a formal setting. Club Comanche in downtown Christiansted offers many exquisite island and curry dishes. During the winter season the Top Hat specializes in Danish cuisine. Frank's al-

ST. JOHN CAMPGROUNDS

Cinnamon Bay Campground
P.O. Box 720, Cruz Bay
St. John, USVI 00830
(809) 776-6330/776-6458
(800) 223-7637

Maho Bay Camps
P.O. Box 310
St. John, USVI 00830
(809) 776-6240

ST. JOHN ACCOMMODATIONS (with dive packages)

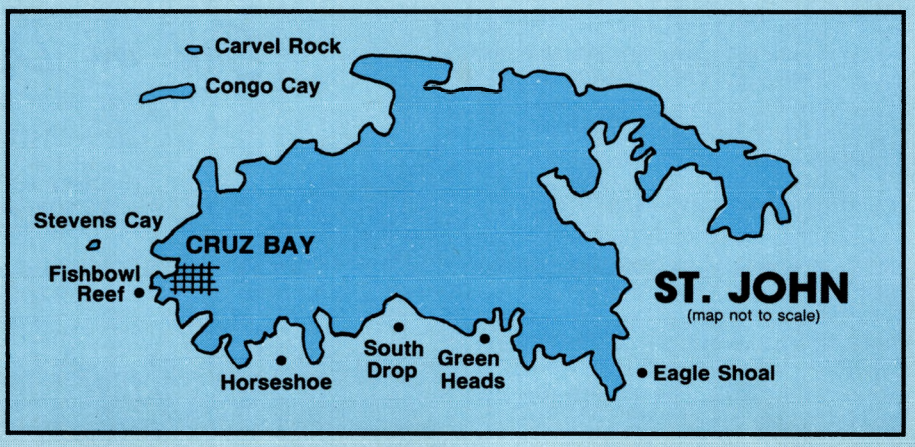
Caneel Bay, Inc.
St. John, USVI 00830
(809) 776-6111; (800) 223-7637

Pelican Peak (private homes)
Attn: Ann Frick
38 McLune Ave.
Bradford, PA 16701
(814) 368-9446

Sea Breeze Villas
P.O. Box 656, Cruz Bay
St. John, USVI 00830
(809) 776-6416

Virgin Grand Beach Hotel St. John
Great Cruz Bay
St. John, USVI 00830
(809) 775-6634; (800) 223-1588

St. John is the smallest of the three main islands. Most people and supplies arrive there by ferry. Hiking is a major attraction on St. John and there are full service campgrounds.



ways has wonderful veal specials and outstanding steaks. The Chart House by the water has an enormous salad bar in addition to great steaks and ribs. In the Bombay Club musicians play jazz twice each week. In the Tivoli Gardens, you can listen to live guitar. Nolan's is a local favorite for island cooking. In the Ritz Cafe, people gather to cheer their favorite sport team on TV while munching on New York deli-style sandwiches or fresh fish. Try Hearts of Palm for colorful sandwiches or vegetarian food.

A good way to see the island is by car. Many major companies such as Avis, as well as several local firms, rent cars and Jeeps. Avis even offers a discount to divers. Scenic drives vary from vistas of the Caribbean to green tunnels under mahogany trees. Just outside Frederiksted, the restored Estate Whim Plantation Museum demonstrates to visitors how the sugar cane growers really lived. The Cruzan Rum Distillery shows guests how the modern operation works.

Golfers enjoy the challenging courses at The Buccaneer and FOUNTAIN VALLEY. Sportfishermen go out on vessels such Caribbean Sea Adventures' 41 foot Hatteras *Ruffian*, hoping to catch the next record blue marlin. Windsurfers take advantage of the trade winds off the northeast shore.

St. Croix is an excellent place for numerous firsts. Many visitors have their first snorkeling experience at the **Buck Island National Monument**. The National Park Service manages this special island. Several local operators offer full and half day excursions to this park. Sailboats, glass bottom and dive boats run to the quiet reefs. This trip is a first underwater experience for many families.

One of the largest operations on St. Croix is CARIBBEAN SEA ADVENTURES, INC. CSA works with THE BUCCANEER, GRAPETREE BAY and GRAPE-

ST. JOHN DIVE OPERATORS

Cinnamon Bay Watersports Center
P.O. Box 720, Cruz Bay
St. John, USVI 00830
(809) 776-6330; (800) 223-7637

Cruz Bay Watersports
P.O. Box 252
St. John, USVI 00830
(809) 776-6234

Paradise Watersports
P.O. Box 550
St. John, USVI 00830
(809) 776-6111

St. John Watersports, Inc.
P.O. Box 70, Cruz Bay
St. John, USVI 00830
(809) 776-6256

Dive at Cinnamon Bay on St. John.

The campground that thinks it's a resort.

- Superb location, right on the beach.
- Offers the total St. John vacation experience: dive, windsurf, sail, hike in the Virgin Islands National Park.
- Outdoor, open-air restaurant *and* complete grocery supplies.
- For diving: 42′ Grand Banks boat with onboard compressor, PADI-certified Dive Master, introductory and open water certification classes, fully equipped water sports center.
- Dive Package includes: 7 days/6 nights accommodations, five days of boat diving which may include one tank, two tank and wreck dives, all necessary equipment. Just *$400* per person, double, through March 31, *$370* from April 1 through July 31, 1987.

See your travel agent or call toll-free: 800-223-7637. (New York City 212-586-4459.) Or call the Campground 809-776-6330.

CinnamonBay U.S.Virgin Islands

A Rockresort

AQUA ACTION

"WHY 9 OUT OF 10 PEOPLE WHO DIVE WITH US ONCE, DIVE WITH US AGAIN."

Aqua Action is located at beautiful Secret Harbour Beach Hotel and only minutes away from the best dive sites in the Caribbean. Our first class hotel has beachfront rooms, tennis, pool, boutiques, and fine dining. We offer superb dining, windsurfing, chartered sails, snorkeling, custom trips AND

The best professional service & instruction in the Caribbean.

AQUA ACTION, INC.
For Reservations Call 1-800-775-2250
P.O. Box 12138, St. Thomas, U.S.V.I. 00801 (809) 775-6285

CARIBBEAN DIVERS
S.S.I. P.A.D.I.
CARIBBEAN DIVERS ST. THOMAS, V.I.
Full service dive shop offering all boat diving
Red Hook
St. Thomas, U.S.V.I. 00802
(809) 775-6384

BIA bohlke international airways
• Pressurized Jet Prop Charter Service Throughout The Caribbean
24 Hr. Air Ambulance Service
St. Croix, U.S. Virgin Islands
(809) 778-9177

U.S. VIRGINS

TREE BEACH HOTELS, KING CHRISTIAN HOTEL, QUEEN'S QUARTER HOTEL and MARY ANN CRAM VACATION HOMES & VILLAS. CSA's headquarters is in the King Christian Hotel adjacent to King's Wharf. Its fleet includes five sailboats, a 41 foot sportfisherman, the 28 foot snorkeling and dive boat *Scorpio*, and the 23 foot *Seaspray*. Although the larger dive boats—the 37 foot *Deliverance* and 40 foot *Phoenix*—can easily handle groups of 20 or more, they gladly carry small parties and individuals. CSA's guided tours are geared toward individual needs and capabilities. Larry and Ginny Angus' staff includes PADI, NAUI, SSI and NASDS instructors. They offer courses ranging from introduction to scuba all the way to assistant instructor. CSA specialty courses include underwater photo, deep, night, search and recovery, and wreck classes. CSA can help arrange a variety of travel packages.

Just east of Christiansted is The Buccaneer. With its elegant accommodations, championship golf course and outstanding beach and restaurant facilities, The Buccaneer remains one of the premier Virgin Island resorts. Farther down the shore is the Grapetree Beach Hotel, situated on an attractive and quiet beachfront. The Anchor Inn and King Christian Hotel are conveniently on the water in downtown Christiansted.

V.I. DIVERS, LTD.'s main store is centrally located in the Pan Am Pavilion in Christiansted. It services the CHART HOUSE HOTEL, THE LODGE, CORMORANT BEACH CLUB, MILL HARBOR, CATHY'S FANCY and the CARAVELLE HOTEL. V.I. Divers' staff has both PADI and NAUI instructors available to teach a variety of courses. Whether you want an introductory scuba experience or a specialty rating, V.I. Divers can do it. In addition to beach diving, it offers boat, night and wreck dives. V.I. Divers owners, Jimmy and Kathleen Antoine, have enlisted B.C. Davis as their full time underwater video professional. Guests can return home with a VCR tape as well as photographs of their vacation. V.I. Divers maintains its rental facility near the Caravelle Hotel pool and has several packages with the Caravelle. Hotel owners, Sid and Amy Kalmans, are themselves accomplished divers. Their understanding of the traveling diver's needs makes a stay at the Caravelle Hotel a relaxing and fun experience. This waterfront hotel's shopping facilities also feature an Eastern and American Airlines ticket office. The remodeling of the hotel property has added a conference center and patio area: A great hotel in downtown Christiansted is getting better.

The logo depicting the profile of a blue whale identifies Christiansted's DIVE EXPERIENCE, INC. Owner Michelle Pugh travels the Caribbean extensively; she

JUST BECAUSE YOU ARE HAVING FUN DOESN'T MEAN YOU HAVE TO SPEND MORE.

For more information and reservations call in the U.S.V.I.

ST. CROIX
809-778-9365

ST. THOMAS
809-774-1468

AVIS®
We try harder.

Avis features GM cars.
Chevrolet Celebrity



Don't buy any camera until you come to St. Thomas

MAXXUM™ AUTOFOCUS SYSTEM

MINOLTA

World's easiest 35mm SLR.

$419.95

PROGRAM KIT:
Maxxum Camera Body/50mm Minolta Lens/ Lens Cap/49mm Skylights Filter/Auto-Electro Flash/Camera Case with Strap/ Batteries/Roll of Film
Prices good until 1/31/87 call for prices on Maxxum Lenses.



Mail Orders Welcome: P.O. Box 3559, St. Thomas, V.I. 00801

We will meet or beat any published price on St.Thomas.

BOOLCHAND'S
31 Main Street All major credit cards accepted. Havensight Mall

ST. CROIX DIVE OPERATORS

Caribbean Sea Adventures, Inc.
P.O. Box 3015
Christiansted
St. Croix, USVI 00820
(809) 773-6011/773-5922

Cruzan Divers, Inc.
12 Strand Street
Frederiksted
St. Croix, USVI 00840
(809) 772-3701

Dive Experience, Inc.
P.O. Box 4254
Christiansted
St. Croix, USVI 00820
(809) 773-3307

Sea Shadows
P.O. Box 505, Cane Bay
St. Croix, USVI 00820
(809) 778-3850/773-1441

The Belangers Virgin Dive
Salt River Marina
P.O. Box 5339, S.I.
Christiansted
St. Croix, USVI 00820
(809) 778-9764

Underwater St. Croix
Green Cay Marina
P.O. Box 3608
Christiansted
St. Croix, USVI 00820
(809) 778-7350/778-7071 (eves.)

V.I. Divers, Ltd.
Pan Am Pavilion
Christiansted
St. Croix, USVI 00820
(809) 773-6045

Caribbean Sea Adventures
FISHING · SCUBA · SAILING

Dive WITH ST. CROIX'S MOST EXPERIENCED





Caribbean Sea Adventures and The Buccaneer Hotel offer the Virgin Islands' most colorful coral reef walls along with the classically inspired arches of our world-famous hideaway resort.

YEAR-ROUND DIVING PACKAGES

- Six Boat Dives.....$150.00
- Ten Boat Dives.....$240.00
- Fourteen Boat Dives.....$300.00

Prices are per person. Dives include tanks, packs and weights.

SPECIAL BUCCANEER HOTEL AQUA FREEDOM PACKAGE

May 15-November 15, 1987

- 7 nights/8 days
- Welcome Cocktails
- Breakfast daily
- Buffet Dinner
- Ten boat dives
- Sunset Cruise with Rum Punch
- Manager's Sippin' Sundown Party
- Bottle of Rum

$750.00

Price is per person. Dives include tanks, packs and weights.

For reservations see your travel agent
or contact **RALPH LOCKE**
315 E. 72nd St., New York, N.Y. 10021
Phone Toll Free
1-800-223-1108
or **(212) 586-3070** in New York State



The Buccaneer
ST. CROIX, U.S. VIRGIN ISLANDS

U.S. VIRGINS

drew on her experience with other operations to set up the procedures for her store in St. Croix. Staff members can certify NAUI, PADI or SSI candidates. Among their specialties are U/W photo, deep, wreck and night diving. Dive Experience makes dive/sail charters available. At the time of this writing, Michelle is awaiting delivery of a new 30 foot 12 passenger boat. This size craft, she feels, will help ensure her ability to offer flexible schedules and friendly service. In keeping with this philosophy, Dive Experience has set up several hotel packages with CLUB COMANCHE HOTEL and TAMARIND REEF BEACH HOTEL.

SEA SHADOWS now has two facilities. The main operation remains in the heart of the north shore area. This keeps owners Steve Fordyce and Libby Wessel close to their favorite dive sites. Their second storefront area booking office is in front of The Anchor Inn at 58A King's Wharf. With both NAUI and PADI instructors on staff, Sea Shadows teaches a wide selection of specialties as well as standard certification levels from introductory to assistant instructor. Sea Shadows emphasizes easy beach diving; it also arranges boat charters. In addition, it can set up underwater videos of your dives. CARAMBOLA BEACH RESORT, CANE BAY PLANTATION HOTEL, THE WAVES AT CANE BAY, CANE BAY REEF CLUB and PINK FANCY all work with Sea Shadows.

Facing the Caribbean Sea on Frederiksted's Strand Street is CRUZAN DIVERS, INC. Down the street, at the main pier, Cruzan Divers' boats, *Afternoon Delight* and *Sea Ox*, are docked. These vessels carry 26 and 6 passengers, respectively. Plans for another craft are in the works. Through the FREDERIKSTED HOTEL and ROYAL DANE HOTEL, Cruzan Divers can accommodate groups or individuals. Cruzan Divers' owner, Tom Long, was instrumental in the placement of several Butler Bay wrecks. His staff members include NAUI and PADI instructors who teach several specialties and certification levels. Cruzan Divers' boats are within ten minutes' run of the wrecks and many reef sites.

At the time of this writing, UNDERWATER ST. CROIX at Green Cay is eagerly awaiting delivery of its new motor vessel *Reliance*. Owner Larry French plans to run both two and one tank charters on his new 24 passenger craft. With NAUI and NASE instructors on staff, Underwater St. Croix offers a wide choice of specialties.

From Salt River Marina comes the custom dive boat *Reefraker*. Operated by Butch and Kathy Belanger, this vessel runs on demand. This captivating couple's enterprise, THE BELANGERS' VIRGIN DIVE, also charters wildlife and scenic cruises.

ST. CROIX DIVING

St. Croix has walls, reefs, wrecks and more. The following list mentions only some of the locations.

National Monument **Buck Island** has an underwater trail for snorkelers, crossing from the inside shallow reef to an outer reef at 30 feet. This area is a great introductory and beginner's reef.

Scotch Bank is a sloping reef that drops from 50 to 100 feet, forming a shelf, and then drops again to several hundred feet. Basket and tube sponges accent the slope. This is a good area for finding lobster and rays, with occasional manta rays.

Long Reef, also known as Six Mile Reef, forms the barrier that protects Christiansted Harbor. The sloping reef steps down from 30 to 50 feet; in some places it may exceed 80 feet. This is a good beginner's reef. Look for pillar and

ST. CROIX RESORTS AND HOTELS (with dive packages)

The Buccaneer
P.O. Box 218
Christiansted
St. Croix, USVI 00820
(809) 773-2100

Cane Bay Plantation Hotel
P.O. Box G, Kingshill
St. Croix, USVI 00850
(809) 778-0410

Cane Bay Reef Club
P.O. Box 1407, Kingshill
St. Croix, USVI 00820
(809) 773-2966

Caravelle Hotel
44-A Queen Cross Street
Christiansted
St. Croix, USVI 00820
(809) 773-0687;
(800) 524-0410

Cathy's Fancy
P.O. Box 400
Christiansted
St. Croix, USVI 00820
(809) 773-5595

Chart House Hotel
2 Company Street
Christiansted
St. Croix, USVI 00820
(809) 773-1377

Club Comanche Hotel
1 Strand Street
Christiansted
St. Croix, USVI 00820
(809) 773-0210

Frederiksted Hotel
20 Strand Street
Frederiksted
St. Croix, USVI 00840
(809) 772-0500

Grapetree Bay Hotel & Grapetree Beach Hotel
Turner's Hole
Christiansted
St. Croix, USVI 00820
(809) 773-0430

King Christian Hotel
P.O. Box 3619
St. Croix, USVI 00820
(809) 773-2285

The Lodge
43A Queen Cross St.
Christiansted
St. Croix, USVI 00820
(809) 773-1535

Mill Harbor Condos
St. Golden Rock
Christiansted
St. Croix, USVI 00820
(809) 773-3800

Mary Ann Cram Vacation Homes & Villas
725 Stone House Rd.
Morristown, NJ 08057
(609) 234-0424

Queen's Quarter Hotel
P.O. Box 770
Christiansted
St. Croix, USVI 00820
(809) 778-3784

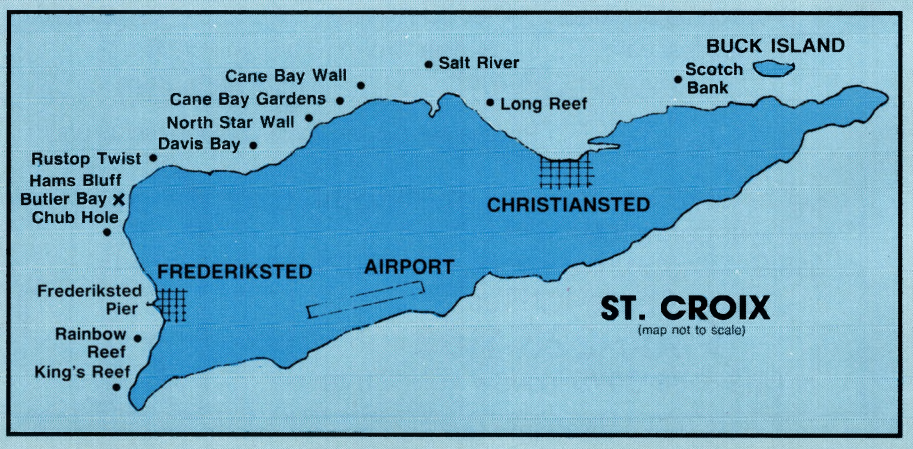
Royal Dane Hotel
13 Strand Street
Frederiksted
St. Croix, USVI 00840
(809) 772-2780

St. Croix by the Sea
P.O. Box 248
Christiansted
St. Croix, USVI 00820
(809) 778-8600

Tamarind Reef Beach Hotel
P.O. Box 1112
Christiansted
St. Croix, USVI 00820
(809) 773-0463

The Waves At Cane Bay
P.O. Box 1749
Kingshill
St. Croix, USVI 00850
(809) 778-1805

St. Croix is the largest of the USVI. In the past, its economy was based on agriculture and there are many historical buildings, forts and plantations to explore.



ST. CROIX DIVER'S GUIDE

Discover the American Paradise — miles of untouched reefs, spectacular coral, awesome walls, crystal clear water, great hotels and professional dive operators.

V.I. DIVERS LTD.

Established in 1971, V.i. Divers, Ltd., has been providing the best in boat and beach diving — reaching dive spots like Cane Bay, Salt River, North Star — and now offering "wreck dives"! Also, weekly night dives to Frederiksted pier or to the Coral Gardens. V.I. Divers, Ltd., will customize a dive to fit you, or your dive club needs. For non-certified water lovers, V.I. Divers, Ltd., offers monthly and weekly certification courses, and one-day introductories, taught by our NAUI and PADI staff. V.I. Divers, Ltd., now offers an underwater video service — be a star and bring home the fun!

UNDER NEW OWNERSHIP
JIMMY AND KATHLEEN ANTOINE

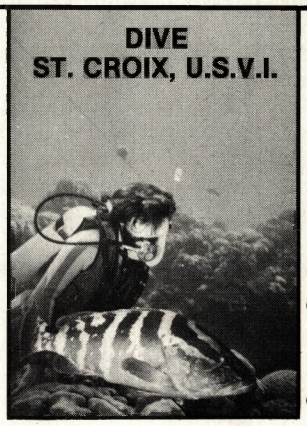


Photo: Doug Kesling

mill harbour

The Suite Side of St. Croix!

DIVE PACKAGES from $320.00

When you're not out with V.I. Divers discovering the remarkable side of St. Croix below the waterline, relax and enjoy "the Suite Side of St. Croix" that awaits topside! Mill Harbour's breezy 1, 2 and 3 bedroom vacation suites with full kitchens are situated on a day dream of a beach. Balconies overlook our tropical lagoon and friendly restaurant. There are night-lighted tennis courts, a fresh-water swimming pool, windsurfing, sailing and more... all near Christiansted's world-famous duty-free shopping. Dive St. Croix from Mill Harbour for an unforgettable Caribbean experience.

FOR RESERVATIONS CALL **800-524-2008**

Estate Golden Rock
Christiansted, St. Croix 00820

HOTEL caravelle ON ST. CROIX



DIVE PACKAGES from $299.00

Combine the Caravelle Hotel and V.I. Divers for the greatest dive vacation of your life. Located on the water in historic Christiansted the Caravelle offers 45 spacious rooms with A/C, telephones, cable T.V. and an enchanting view of the Caribbean. Boat leaves directly from hotel each day. Call or write: Hotel Caravelle, 44A Queen Cross St., Christiansted, St. Croix, U.S.V.I. 00820 (809) 773-0687

TOLL FREE **800-524-0410**

Cathy's Fancy BEACH HOTEL

Dive when you arrive. Only 20 minutes from check-in, be on live coral reef (Long Reef), it's only 130 yards from our palm covered beach and 150 yards from our Beach Bar. Night dive from your hotel beach. Dive the day you are leaving. Don't waste a moment.

$90. PER NIGHT FOR 2 (Season)

Call or write for our brochure

(800) 524-5004

P.O. Box 400, Christiansted
St. Croix, U.S.V.I. 00820

The St. Croix by the Sea Hotel

P.O. Box 248, Christiansted
St. Croix, U.S. Virgin Islands 00820
(809) 778-8600

DIVE PACKAGES from $339.00

PER PERSON (Double Occupancy)

All newly renovated - A 67 room resort with all rooms ocean view - cable color T.V. - Direct dial telephones, air conditioning, paddle fans, 2 dining rooms, lobby lounge, Pub bar, pool/bar & restaurant - West Indian Night Club with indoor/outdoor West Indian Cuisine, 4 lighted tennis courts, 3 conference rooms, sunning beach, and the largest salt water pool in the Caribbean, 154 ft. long.

800-524-5006

Sea Shadows SCUBA

Complete Diving Services at Cane Bay
P.O. Box 505, Cane Bay 1-809-778-3850

Also at Anchor Inn Boardwalk 773-1441

GREAT DIVE PACKAGES WITH CHRISTIANSTED'S GREATEST DOWNTOWN WATERFRONT LOCATION.

Lon Southerland's Anchor Inn OF ST CROIX

58-A King St., Christiansted
St. Croix, U.S. Virgin Islands 00820

TOLL FREE 800-524-2030

U.S. VIRGINS

elkhorn corals, schools of blue tangs, pufferfish and rays.

Salt River is actually two sites, East and West Wall. The submerged canyon of the prehistoric Salt River, a modern day estuary, this dive site is still subject to occasional silting. The West Wall drops from 30 to 90 feet. After a shelf, it plunges again to several hundred feet. Heavily dissected, the West Wall seems to be a maze of cuts and crevices, a good area for encrusting and tube sponges. Black coral grows in large stands. Spotted eagle rays, large jacks and other pelagics are often sighted here. Salt River East Wall is similar, but more sloping and is home to lots of schooling fish.

Between Salt River and Cane Bay, **Rustop Twist** is a steeply sloping reef that starts in 35 and drops to 100 feet of water. The reef is cut by deep crevices and cracks, with lots of marine life; this is a good area for larger fish. Scattered ledges appear during the descent.

Cane Bay is a wonderful area for several dives. Close to the beach is the section called Cane Bay Garden. This shallow dive offers lots of pillar corals, encrusting sponges and schooling fish. Deeper, the topography changes to buttressing fingers that form a spectacular wall. The top of Cane Bay Wall starts around 50 feet and drops to several hundred feet. This site offers many layers of corals, and massive orange, rope and yellow tube sponges. Groupers, jacks and turtles often swim by. Dolphins have been seen in the shallow water here.

Another spectacular wall similar to Cane Bay Wall, **North Star**'s drop-off is slightly steeper. After a break at 40 feet, the wall drops to 60 feet and a sand shelf. Leading back to the wall, the shelf runs into a cave. One large anchor lies in the sand and at least one more protrudes from the wall above the cave. Both Cane Bay and North Star were favorite anchoring zones for old trading schooners.

The topography of **Davis Bay** is similar to that of Salt River but with large boulders and crevices. Davis Bay drops from 40 to 60 feet; sand channels slope down toward a trench.

Owing to possible strong currents that may sweep around this northwest point of the island, **Hams Bluff** is for experienced divers. Large boulders are the base for many soft corals. Schools of fish and large pelagic fish are often found here.

In March 1985 the 177 foot long ***Rosaomaira*** capsized in St. Croix's container port. She was later towed out to the Butler Bay artificial reef site and, thanks to carefully placed charges, sunk in an upright position. Maximum depth is now 110 feet. One can tour the wreck without breaking 90 feet. When the ship turned



TRAVELLERS TOURS

- Group Transfers from Airport to Hotel
- Custom Sightseeing & Golf Course Trips

778-1636 773-3986 778-9756

Courteous, Experienced Drivers who know St. Croix

DIVE ST. CROIX

AMERICAN VIRGIN ISLANDS

DIVE OUR REEFS, WALLS & WRECKS

8 DAYS/7 NIGHTS

$499 per person double occupancy

- **5 two-tank boat dives** (2 Dive Boats: 42' Afternoon Delight and 23' Sea Ox)
- **Unlimited beach and pier dives** (Frederiksted Pier and Beaches 2 blocks away)
- **Lodging** (Royal Dane Hotel, a newly renovated 200 year old townhouse)
- **Airport transfers**
- **Welcome cocktail**
- **Room & energy taxes**

Offer available April 1 - Dec. 15, 1987



CRUZAN DIVERS INC.

12 STRAND STREET, FREDERIKSTED, ST. CROIX
U.S. VIRGIN ISLANDS 00840 809-772-3701

Dive Shops and Travel Agents: ask for wholesale rates

YACHT CHARTER BROKERS

Easy Adventures
The Anchorage
Estate Nazareth
St. Thomas, USVI 00802
(809) 775-7870; (800) 524-2027

V.I. Scuba/Sail Charters
P.O. Box 10966
St. Thomas, USVI 00801
(809) 776-2860; (800) 524-2005

Virgin Island Water Safaris
(Div. of Regency Intl. Yacht Charters)
Long Bay Road
St. Thomas, USVI 00802
(800) 524-7676



Photograph by Jim and Cathy Church

A fantastic variety of excellent dive sites by day. A fantastic variety of restaurants and clubs by night. For additional information, write to the United States Virgin Islands Division of Tourism, P.O. Box 471269, Miami, FL 33147.

"...the United States Virgin Islands have it all." *Jim and Cathy Church*

circle **#188** on Reader Service Card

turtle in the harbor, there was little warning. Books still lie open on the bridge. For months, a cluster of bananas hung in the galley. Today, French angels maintain watch. This wreck is an exciting location for experienced divers.

The North Sea trawler ***Suffolk Maid*** rests inshore of the *Rosaomaira*. The 140 foot long vessel rises 60 feet from white sand. Before she was sent to the bottom, the ship's superstructure was removed. Her empty holds have easy entrances and exits.

The tugboat ***Northwind***, like the other two wrecks described above, sits upright in the sand. Although she is the newest addition to the wreck playground, the *Northwind* already has several permanent residents; blackbar soldier and goatfish hide in the interior. The exposed propeller and rudder can be used to frame divers for photographs.

Truck Lagoon and the **Habitat** are east of the *Northwind* and south of the *Suffolk Maid*. Habitat is an experimental underwater habitat constructed of three connected spheres. The wide circular openings and curved surfaces create interesting photos. Nearby, several truck frames now carry cargoes of encrusting corals and sponges. The doors and steering wheels still remain on many vehicles. A juvenile coral tree sprouts from one driver's seat.

In about 45 feet, **Chub Hole** is a coral ledge that creates a circular formation. Named for the chub that visitors feed here, this is a great spot for a night dive.

No description of St. Croix diving would be complete without mentioning **Frederiksted Pier**. The submerged pilings have become home to an amazing variety of encrusting, tube and basket sponges. Jim and Cathy Church have made the seahorses that often reside here famous. A trip to St. Croix should include at least one night dive at the pier.

South of Frederiksted Pier, **King's Reef** begins in 45 feet and slopes to around 110.

CONCLUSION

The USVI is where many people experience firsts; their first sailboat cruise, snorkeling tour or, if they are lucky, introduction to scuba. The natural beauty above and below the water captivates the observer. The care and attention proffered by the dive operators spoils divers. Hotels pamper their guests. With restaurants serving such fine cuisine, dieting is sinful. It is such diverse offerings that attract new visitors and keep seasoned travelers returning.

Get into gear at Grapetree Beach Hotel.
With Caribbean Sea Adventures.



Our scuba specials let you get in over your head for a lot less than you'd expect. From just $377,* the 4-day/3-night plan features three 2-tank dives (including gear as needed) at some of St. Croix's most celebrated sites — including Buck Island. Longer packages available with all plans supervised by Caribbean Sea Adventures, one of the Virgin Islands' leading dive operators. So call today — and gear up for fun!

For reservations or information, see your travel agent or call Reservation Systems, Inc. (RSI) at 800-223-1588; in New York, 212-661-4540.

Grapetree Beach Hotel
P.O. Box "Z," Christiansted
St. Croix, U.S. Virgin Islands 00820
*per person, dbl. occupancy 12/20/85-4/7/86

UNDERWATER ST. CROIX

DIVE PACKAGES WITH HOTEL, CONDOMINIUM, AND PRIVATE VILLA ACCOMMODATIONS

UNDERWATER ST. CROIX
P.O. Box 3608
Christiansted, St. Croix
U.S. Virgin Islands 00820
(809) 778-7350 / 778-7071

UNDERWATER ST. CROIX'S
"RELIANCE"
CUSTOM DESIGNED FOR DIVERS



"Reliance" dives St. Croix every day.

DIVE EXPERIENCE



An incredible DIVE EXPERIENCE awaits you on St. Croix. Experience unique drop-off walls, vivid coral reefs and an abundant variety of marine life, all beneath the warm clear waters of St. Croix. Join DIVE EXPERIENCE daily as we go along the north shore by boat or by land exploring spectacular reefs and drop-off walls. PADI, NAUI and SSI training, from resort dive to assistant instructor certification. Two Dive Boats. Night dives too! DIVE EXPERIENCE is St. Croix's newest and most complete diving facility. DIVE EXPERIENCE is a full retail store with air, rentals and underwater photography equipment available. Open daily. Write or call us at: DIVE EXPERIENCE, P.O. Box 4254, Christiansted, St. Croix, USVI 00820 (809) 773-3307.

Winter Rates: Dec. 15-April 14	5 Days 4 Nights Single: $365 Double: $322	8 Days 7 Nights Single: $599 Double $525

Club Comanche

FOR RESERVATIONS CALL TOLL FREE 800-524-2066
Hotel and Dive Package with Club Comanche in downtown Christiansted. Dive packages include all equipment, boat or beach dives and dive guides. Outstanding accommodations. 5 Day Plan includes 3 days of diving (two tank dives). 8 Day Plan includes 5 Days of diving (two tank dives). Prices per person, local tax not included.



Truk Lagoon Cruises

BY GERI MURPHY

The *Thorfinn*, Truk Lagoon's only licensed live-aboard dive boat, recently announced a series of special one week shipwreck cruises for 1987. Starting in January, these one week cruises will consist of seven days/seven nights aboard the ship and six full days of intensive wreck diving. During the week, guests will have access to some 12 to 18 wrecks with one to two dives per wreck.

The wrecks are all historical World War II Japanese ships and aircraft sunk in 1944. Often described as the world's largest collection of fully preserved World War II wrecks, these dive sites include an aircraft ferry, two submarine tenders, several ammunition ships, two oil tankers, a Betty bomber, a zero fighter, an Emily flying boat, a sub chaser and many more. Many of the ships are still armed with the original guns and carry a fascinating variety of cargoes including fighter planes, trucks, tanks, bombs and other wartime items.

The wrecks of Truk Lagoon lie in depths ranging from 10 to 130 feet. Much of the dive time is spent in relatively shallow depths exploring the upper decks and marvelous marine growth that envelops these ships. Having been U/W for almost 44 years, the wrecks are covered with hard corals, brilliantly colored soft corals, carpet anemones, clownfish and thousands of other fish. All of the wrecks are fully protected by law and have been declared an historical monument by the Truk District Government.

The *Thorfinn* is a 170 foot ship that has been converted into a comfortable live-aboard dive boat. It is equipped with 13 private double cabins, all air-conditioned. Special features include a comfortable main saloon, a spacious sun deck with dive gear storage bins and a large hot tub.

The ship recently underwent extensive refitting in Canada, including the installation of a tropical air-conditioning system and additional facilities for divers. Diving is done from three 24 foot tenders that load passengers alongside the main vessel. These smaller craft make hourly runs to nearby shipwrecks, thus minimizing the number of divers on a shipwreck at any one time. Guests average three to five dives daily.

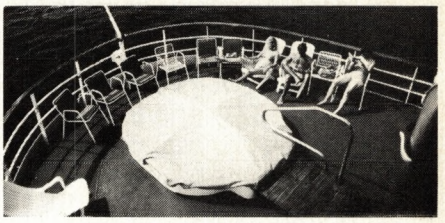
Truk Lagoon is in the center of Micronesia, approximately 3,400 miles west of Hawaii. It is a gigantic natural lagoon, 38 miles in diameter and reaching depths of 250 feet. The lagoon is encircled by a coral barrier reef and is often flat calm since the wrecks lie in the lee of several volcanic mountainous islands.

The *Thorfinn*'s series of one week Truk cruises is scheduled for January, February, May, November and December of 1987. The cost of a one week dive package is $1,750 per person (double occupancy). This price is considerably lower than the *Thorfinn*'s normal 12 day cruises between Truk and Ponape. Air fare to Truk Lagoon from the West Coast of the U.S. is approximately $1,100. It takes two calendar days to reach Truk from the West Coast owing to an overnight stop in Honolulu and the crossing of the International Date Line in the mid-Pacific.

For more information and reservations contact See & Sea Travel Service, 50 Francisco St., Suite 205, San Francisco, CA 94133; telephone (800) 348-9778 outside California or (415) 434-3400 in California. You can also contact Seaward Holidays, 2315 Commissioner St., Vancouver, B.C., Canada V5L 1A4; telephone (800) 663-8746.



The *Thorfinn* offers live-aboard cruises to Truk Lagoon. Above: Main saloon. Below: The stern deck with hot tub (covered).

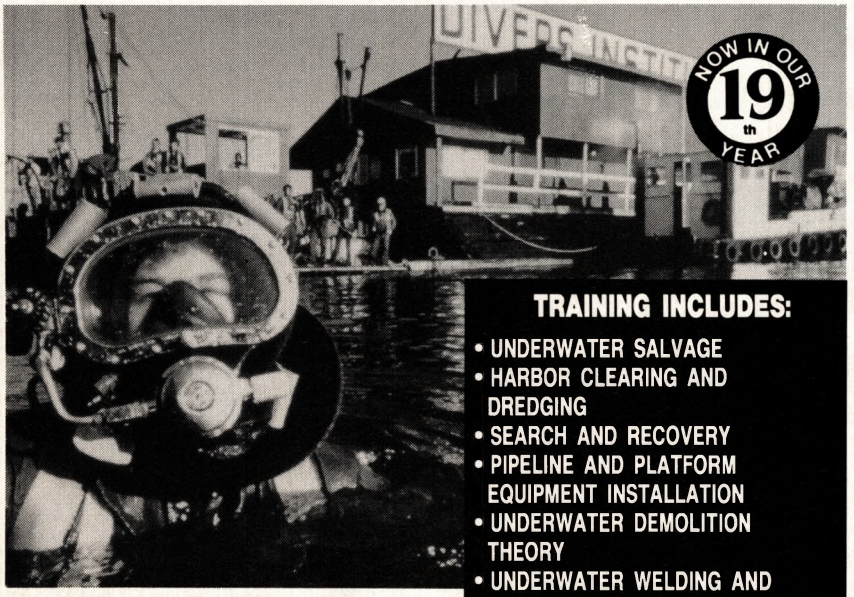


THORFINN 1987 SCHEDULE
One Week Truk Cruises

Jan. 18	Jan. 27
Feb. 13	Feb. 22
May 10	May 19
Nov. 22	Dec. 01
Dec. 20	Dec. 29



D-I-T GUARANTEES PROFESSIONAL DEEP SEA DIVER TRAINING



TRAINING INCLUDES:

- UNDERWATER SALVAGE
- HARBOR CLEARING AND DREDGING
- SEARCH AND RECOVERY
- PIPELINE AND PLATFORM EQUIPMENT INSTALLATION
- UNDERWATER DEMOLITION THEORY
- UNDERWATER WELDING AND CUTTING
- UNDERWATER PHOTOGRAPHY AND VIDEO
- RIGGING
- PNEUMATIC AND HYDRAULIC TOOLS
- DEEP DIVES TO TWO HUNDRED FT.
- DEEP DIVES ON MIXED GAS (HELIUM & OXYGEN)
- PROFESSIONAL TENDER OPERATIONS
- HULL CLEANING AND REPAIR
- COMPRESSION CHAMBER OPERATIONS
- AND MUCH MORE!!!

WE GUARANTEE YOU:

- PROVEN COMMERCIAL DIVING INSTRUCTORS
- NATURAL WORK ENVIRONMENT (NOT POOLS AND TANKS)
- OPEN WATER DIVES TO TWO HUNDRED FEET
- USE OF EQUIPMENT CURRENTLY BEING USED IN INDUSTRY
- TRAINING ACCEPTED IN INDUSTRY
- PROFESSIONAL DIVER TENDER INSTRUCTIONS
- STRAIGHT TALK–THE WAY IT IS

APPROVED BY:
Dept. of Education as an eligible institution for the Guaranteed Student Loan, National Direct Student Loan, PELL Grant and Supplemental Educational Opportunity Programs. Washington State Commission for Vocational Education for Veterans Training.

MEMBER OF:
National Assn. of Trade and Technical Schools (NATTS)
Assn. of Commercial Diver Education (ACDE)
Assn. of Diving Contractors (ADC)
Undersea Medical Society (UMS)
Institute of Diving (IOD)
Wash. Assn. of Trade and Technical Schools (WATTS)
Better Business Bureau (BBB)

GET YOUR CAREER STARTED TODAY

DIVERS INSTITUTE OF TECHNOLOGY
(206) 783-5542
D.I.T. is accredited by Accrediting Commission of the National Association of Trade and Technical Schools.

P.O. BOX 70312, SEATTLE, WA 98107

Send for our catalog. It contains full disclosures: course outline, employment statistics, instructor qualifications, tuition refund policy, standards of progress, financial assistance, etc.

SDM-1

NAME

ADDRESS

CITY ST. ZIP

PHONE

SCUBA TANK INSPECTION MIRROR

A small diameter, two power, shoulder mirror, needed to inspect aluminum cylinder thread bases and shoulders, has been added to the PSI list of special VCI tools. Some neck cracks have recently been found in cylinders, leading to an emphasis on the importance of a critical assessment of both the threads and the shoulder curvature just below the interiormost thread.

The mirror is the highest quality available to the dental profession. It can be ground to fit into small necked, 7/16 inch, SCBA cylinders.

The mirror should be used in conjunction with a penlight (not supplied) to direct the light against the cylinder surface. All cracks seen to date appear to propagate just below the last thread and usually penetrate vertically upward through one or more threads. The cracks may be hairline and require close examination.

Inspectors previously trained by PSI may audit an upcoming class on a space available basis ($25) to see an actual cracked cylinder and use the shoulder mirror. Attendees receive revised material and are credited with the additional training in their permanent file maintained for them by PSI.

Order mirrors ($12, postage paid) directly from PSI at 6531 NE 198 St., Seattle, WA 98155.

JAY SCUTTI REEF

South Florida scuba divers have a new artificial reef. The 97 foot tug, now named the *Jay Scutti*, was sunk offshore Fort Lauderdale, in 70 feet of water just north of the now famous wreck of the *Mercedes I*. The tug was purchased at the Federal Customs Auction by Dale Scutti, who donated the ship to the Broward County Artificial Reef Program. This tugboat was renamed in memory of Dale Scutti's late son, Jay Scutti.

The cleanup of the vessel was shared by the Florida Ocean Science Institute, an alternative education program, and the South Florida Diver's Scuba Club. Both of these non-profit organizations have had experience cleaning artificial reefs.

All of the costs for this project were donated. In addition to the purchase of the vessel by Scutti, Port Everglades Authority again donated free dockage; Harrington & Company donated their services as agents for the ship; Hvide Shipping towed the *Jay Scutti* to the artificial reef site; Cliff Berry Inc. cleaned the vessel of oil pollutants; Southern Sanitation donated the trash removal; and the Broward County Parks and Recreation Division supplied dump trucks to haul heavy debris to a landfill. Even the beverages to keep the divers cool were donated by Wm. Theis & Sons.

SDM travel SECTION

CAP'N DON'S HAMLET

A New Dimension for Bonaire's Lifestyle

TEXT AND PHOTOGRAPHY BY STEVE LUCAS

There's a bunch of comic strips stuck on the wall in the Habitat's Quarter-Deck restaurant. I remember reading some of them when they first ran in the newspaper. If you were ever a fan of Dondi, you might remember them too. But you might be surprised to find out that one of diving's more notorious individuals was the inspiration for one of the strip's characters.

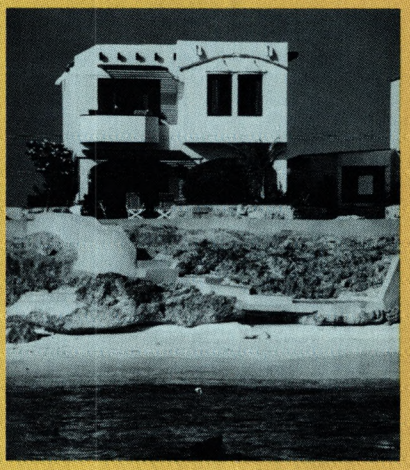
In one, Dondi has found himself on an island lost somewhere deep in the tropics: "Bonairy," it is called. He's at a summer camp kind-of retreat (I wanted to say resort, but I know better) and he is itching to go diving. Well, Dondi must first learn some respect for the sea and its inhabitants. Like the rest of us, he needs instruction before he jumps into the ocean with a tank strapped to his back.

So, Dondi finds himself a dive instructor. This familiar looking fellow is an old seaman who looks more like a pirate than a dive instructor. A bearded, hat wearing, earringed, ocean loving fellow who fell to earth on Bonairy—from nobody knows just where—he is referred to in the comics as Cap'n Don. (Strange, I know a fellow called Cap'n Don, too.) In a short while (when you only have six panels to tell a whole story, time does have to move right along) the Cap'n teaches Dondi about the ocean, its inhabitants and other things. And, like the rest of us, Dondi becomes hooked on diving while the Cap'n gets his ecology message across to comic strip lovers.

Well, that bearded, hat wearing, earringed, ocean loving fellow, who in real life also wears scratched glasses and loves to share a rum and coke with a friend, really does live down on a real-life, not-so-lost, tropical island called Bonaire. And, he is still trying to convey his message to anyone who will sit long enough to listen.



Cap'n Don considers his facility a "dive shop with rooms," and his guests friends. The Hamlet, the latest addition to Cap'n Don's Habitat, is a villa complex with units ranging from one to three bedrooms. In addition to its dive operation, Habitat has a complete underwater photo center.





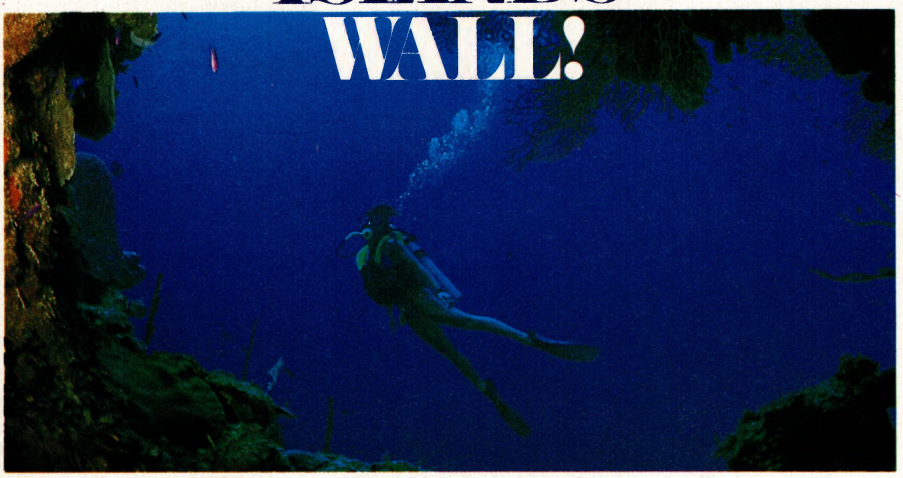
Dondi may have gotten some of the message across, but the strip left a lot about the man untold. The Cap'n left the real world about 25 years ago to roam the seas. The way he tells the tale, after bouncing on and getting bounced off several islands, Bonaire just sort of got in his way. I'd say it just sort-of got in his blood too. I doubt there is another man who loves this island more than Cap'n Don Stewart.

Outside, the Cap'n is about as rough as coarse sandpaper. But, inside is a gentle fellow with a pure platinum heart. Once you get him started telling tales, you'd better not make any plans for the rest of the evening. It took me about half a day to get through his thick elephant hide exterior, but as soon as he dropped his guard and we discovered a deep mutual love for the sea, a friendship was bonded for life. Once the shell is cracked, it becomes obvious the seaman inside is deeply in love with his island and the ocean.

Just off the coast of Venezuela, Bonaire is about as far south in the Caribbean as you can get. Shaped like an oversized boomerang, its position is perfectly situated to knock down the trade winds that almost per-

(Continued on Page 80)

CAYMAN ISLANDS WALL!



"Those who know us, love us."

Those who know us, love the safe and beautiful diving along the majestic vertical walls surrounding our three Islands. The crystal clear waters and thrilling drop-offs that make our Islands a superstar among dive destinations. And they love our people, who make a vacation here unforgettable. Come to our magical trio of sunny islands in the



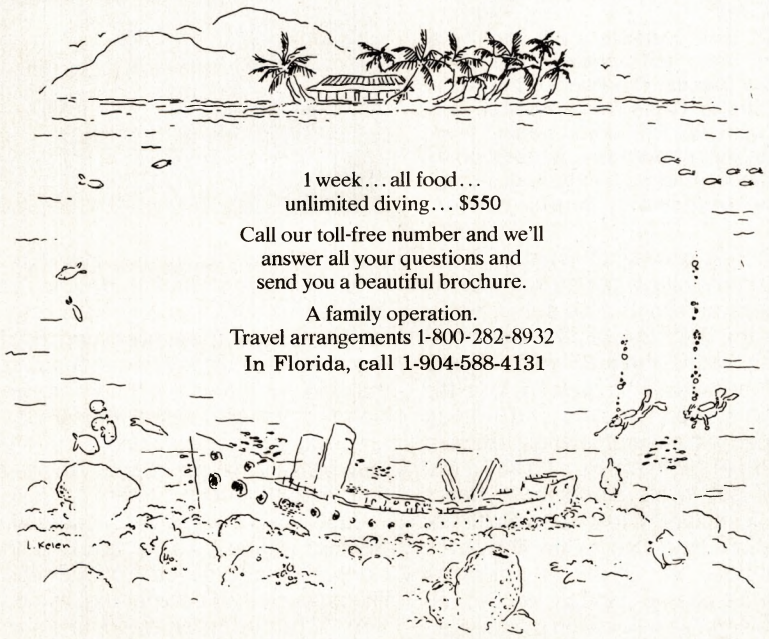
British Caribbean. Getting here is easy, via frequent jet service flights on Cayman Airways. Our professional dive shops and schools make learning easy. Even experienced divers are in for the thrill of a lifetime! Call your travel agent or Cayman Islands Department of Tourism. You'll find that our enthusiasm for divers runs as deep as our Wall!

CAYMAN ISLANDS

Department of Tourism Sales Offices: Miami/Houston/Los Angeles/New York/Chicago/Dallas/Atlanta/Toronto/London

Our front yard is a wreck,

and a beach, a sun deck, a 110 foot wall...



1 week... all food...
unlimited diving... $550

Call our toll-free number and we'll answer all your questions and send you a beautiful brochure.

A family operation.
Travel arrangements 1-800-282-8932
In Florida, call 1-904-588-4131

L.Keien

CoCoView Resort
Roatan, Bay Islands, Honduras

WaterWorks – Chicago

petually blow from the east. Looking out from the captain's place you can see a nearly perpetually calm ocean where diving starts right at the shore. Another little island out in front, Klein Bonaire, also has coral growing all the way to its shores.

At the north end of Bonaire's hotel strip, the captain and his crew call their home Habitat. According to the Cap'n it is not a resort (even though the sign outside the gate says it is). What it is, is one of the most famous dive hotels (he hates that word too) in the Caribbean. "A place for serious divers," Cap'n Don says. "It's a dive shop with rooms," he insists. Since he built it from the ground up he can call it whatever he pleases.

It is certainly a non-conformist place to stay and stories about the captain have appeared in all sorts of magazines and newspapers. A 1984 Sports Illustrated article implied nicely that Don, his crew and the "dive shop with rooms" were completely off the wall in an article entitled, Eyeball to Eyeball with the Wierdies. Thriving on just such descriptions, Cap'n Don strives to please those people who do not find any form of regimentation to their liking. Of course, even if you're normal, you, too, are welcome.

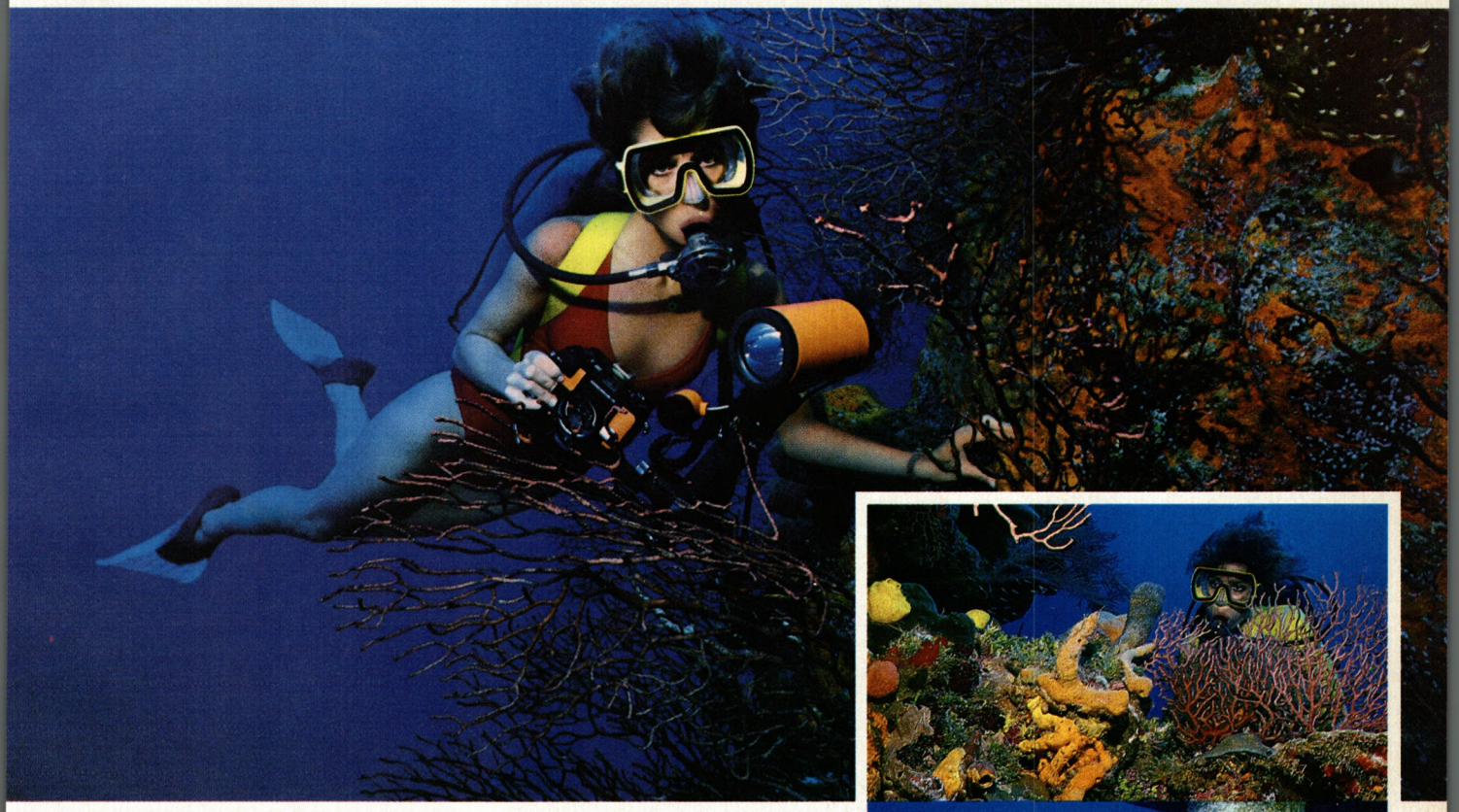
At Habitat, you dive when you please, 24 hours per day! You don't even have to make special arrangements if you want to see the crinoids and seahorses at 4:00 am. Just walk down to the dive shop when the urge hits you, grab a tank and jump in. Equipment is available anytime. If you choose to be more conventional, the dive boats leave more or less on schedule at 9:00 am and 2:00 pm.

"We do not have guests," Cap'n Don's business manager, Morey Ruza, insists, "we just have friends." An ardent cave diver who has charted dozens of inland island dive sites, he is one of the forces that keeps the captain's feet firmly on the ground. While the captain is a dreamer, Morey is a planner (and maybe a bit of a schemer as well). With a pile of computer printouts to illustrate his point and one of his wife's freshly baked bagels in his hand, he gets excited as he tells of the future plans for Habitat.

In addition to the several dozen cottages that are available to their friends, Habitat is now building close to 30 individual villas, which are being sold to more permanent friends. Called the Hamlet, they range in size from one to three bedrooms. Most of the already finished villas face the ocean and a small beach that Don calls Seven Body Beach. The buildings that will follow will be built around a courtyard area, for which Morey has some impressive plans.

Instead of a typical swimming pool, Morey and Don want to build the ultimate

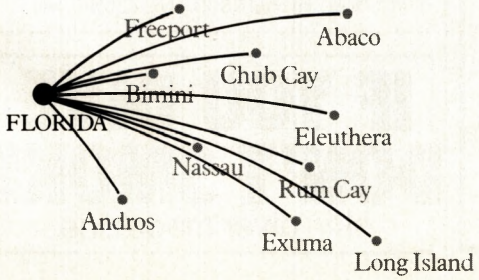
The Bahamas.
When you get down to it, no other place gives you as many diving experiences.





Historic wrecks. Drift-diving along the Continental Shelf. Magnificent marine life. Visibility up to 200 feet. The challenge of blue hole diving. Spectacular drop-offs. Brilliant coral reefs and canyons. Discovering countless "critters." 100,000 square miles of uncrowded ocean. A different place to dive every day.

Just off the Florida coast.
It's all there in The Bahamas.



For sports information, call **800-32-SPORT** toll free. For hotel reservations, see your Travel Agent or call 800-327-0787. In Dade County, 443-3821.

It's Better In The Bahamas.

IT'S A BIRD!
IT'S A PLANE!
IT'S A TEXAS HOBIECAT!
NO. IT'S SUPERYACHT!



LAMMER LAW

TRIMARINE
P.O. BOX 362
ROADTOWN
TORTOLA, B.V.I.

800-648-3393
800-448-8866

CAP'N DON'S HAMLET

artificial lagoon. It will have circulating seawater pumped to and from the ocean; it will be an enclosed miniature ocean. It will be stocked with tropical fish and invertebrates; those guests who are too timid to snorkel off Seven Body Beach can try it here first.

Don likes to place a great deal of emphasis on advanced dive instruction as well as underwater activities to keep divers involved in the sport. Habitat has a complete underwater photo center, Bonaire Seaphoto, which offers camera rental, E-6 film processing, underwater video and photo courses taught by resident pro Andre Nahr. It is also the base of operation for Dee Scarr's Touch the Sea.

Well known as an author and guide, Dee's ability to relate to the sea's creatures is almost legendary. During selected months of the year she takes small groups of divers on individual tours of many reefs, including those found directly in front of the dive shop. Under her supervision guests learn to experience the sea through their tactile senses. Believe it or not, they learn to pet a moray eel, get nose to nose with a stonefish and hug a grouper as a part of the experience.

With easy to dive from flattop boats that can reach any of the popular sites, Don also dives several places that are unique to Habitat. With some of the Caribbean's easiest diving right out in front, you really don't even need the boats to experience some of Bonaire's best.

Habitat may not be the most conventional dive retreat in the Caribbean. But return guests (and there are plenty of those) claim it is certainly one of the most relaxing and fun. For additional information about Cap'n Don's Habitat or Hamlet, call (800) 345-0322 or (802) 496-5067. You can also contact: Habitat USA, P.O. Box 237, Waitsfield, VT 05673.

CASA DEL MAR

La Ceiba Beach Hotel and Water Sports Center on Cozumel has opened additional facilities called Casa del Mar. Casa del Mar features scuba, snorkel and U/W photography facilities, dive lockers and a pier, as well as spa, wet bar, freshwater pool, tennis courts, its own shopping plaza and restaurant.

For information call (800) 621-6830 or in Texas (214) 669-1991. Write to Casa del Mar, 100 N. Central Expressway, Suite 500, Richardson, TX 75080.



HOTEL LA CEIBA
Cozumel Q.R. Mexico P.O. Box 284
Tel 987-20065, 20815, 20844
Telex 753 265 CEIBME

COZUMEL'S DELUXE DIVE PACKAGE
LA CEIBA BEACH HOTEL
FANTASIA DIVERS
- 7 delicious breakfast & dinners
- 6 exotic beach lunches
- Daily boat trip to Palancar reef & vicinity
- One night boat dive
- Complimentary T-Shirt
- Unlimited beach dive at La Ceiba reef

LINDA FOUNTAIN
100 N. Central Expy, Suite 500
Richardson, Texas 75080
Tel 214 669-1991
Wattsline 800-621-6830
Telex 792475
Prices effective through August 31, 1986

IF YOU DIVE
DON'T SMOKE
skin diver magazine



During World War II, this place was hell.

Today, it's Paradise.

Anuha, Solomon Islands, South Pacific.

If you happened to be flying a P38 during the last war, you could find it with your eyes closed.

Slightly to the left of the old US base at Tokyo Bay, and on the way to Guadalcanal.

Fifty years later, peace reigns gently over this perfect tropical island.

The people are as gracious and friendly as ever.

The water is crystal clear, and the beaches still look like a picture postcard.

The guest houses are built in native style, with private bathroom, electricity and traditional ceiling fan.

The dining room supplies a feast of fresh seafood and tropical fruits daily.

And the bar hums with relaxed conversation.

For divers, Anuha is a world class experience.

The water is exceptionally clear, the coral reefs rivaling the Red Sea and the Caribbean.

You'll never forget Warren's Wall, a coral cliff which drops 600 feet straight down.

And you will always remember the sombre wrecks of Japanese and American battleships which found their final resting place in the waters around Anuha.

If you would like to dive Anuha, we will fly you here from the city of Brisbane on Australia's North Coast.

Anuha may be a long way from Manhatten. But it is very close to paradise, and very affordable.

Post the coupon for further information.

Dive Anuha

SOLOMON ISLANDS, SOUTH PACIFIC.

TO ANUHA ISLAND RESORT,
123 CHARLOTTE ST,
BRISBANE,
QUEENSLAND 4000,
AUSTRALIA.

AIR PACIFIC

Please send me information on diving Anuha, with details of holiday packages available.

NAME:_____

ADDRESS:_____

_____ ZIP CODE:_____

OR CALL:

1966 TWENTY YEARS OF SERVICE TO DIVERS 1986

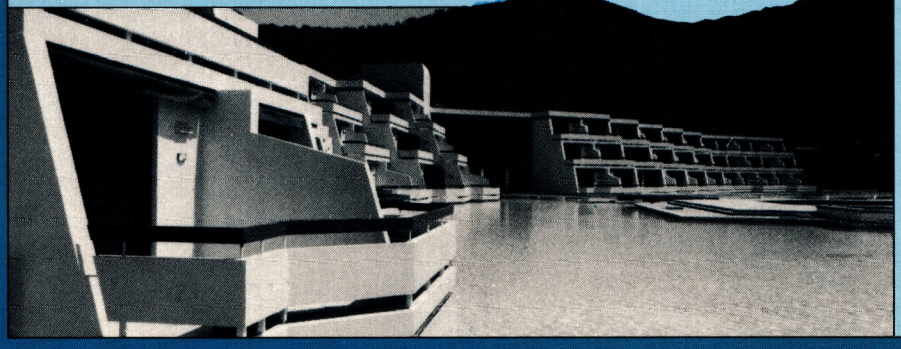
SEE & SEA TRAVEL SERVICES, INC.
50 FRANCISCO ST./STE. 205
SAN FRANCISCO, CA 94133
1-800-348-9778

Australia The Wo

AIR QUEENSLAND TO LIZARD ISLAND.
Wing your way to Lizard Island on Air Queensland and discover 2,500 acres of national park set in a turquoise lagoon. It is the exclusive diver's hideaway with accommodations in secluded island-style luxury for only 64 guests. World-famous Cod Hole, Cormorant Pass, Hilda, Day, and Carter Reefs are just an hour away by fast, specialized dive boat. All dive equipment is available for rent. Lessons and full certification are available. This magnificent resort also offers countless beaches, fresh water pool, tennis court, light and heavy game fishing, sightseeing by glass-bottom boat, plus much more. For complete information on fares and travel, call (213) 381-3062 or (212) 697-3694.



HAYMAN ISLAND.
How do you improve on paradise? That's what the world will discover in late 1986 when Hayman Island Resort reopens after a $AUS120 million reconstruction program. This complete holiday island on the Great Barrier Reef will offer superb accommodations for the whole family: complete air-conditioning, 24-hour room service, 5 international class restaurants, water skiing, sailing, and nightly entertainment. A 25-knot dive boat offers fast daily access to Bait Reef and beyond. Hayman can be reached by Ansett Airlines jet to Hamilton Island, and transfer on the luxurious M.V. Sun Goddess. Call *Dive In Australia,* (415) 421-5588.



QUICKSILVER DAY TRIPS.
This high-speed catamaran out of Port Douglas provides the only day trip to the true outer reef for everyone – divers, swimmers, and even non-swimmers. Quicksilver offers two dives per day, learn-to-dive programs, sumptuous smorgasbord lunch, underwater observatory, and reef viewing tours in the unique Subsee Explorer. A wonderful way to enjoy great underwater sightseeing. Call *Dive In Australia,* (415) 421-5588.

SCHEHERAZADE.
For an exceptional diving vacation, sail aboard Peter Wright's beautiful Scheherazade – a fully powered 55-foot sailing cutter. From Cairns, this exquisite yacht carries up to six passengers to the Ribbon Reefs, Cod Hole and Lizard Island with visits to Bougainville and Osprey Reef in the Coral Sea. To learn more, call *Dive In Australia,* (415) 421-5588.

FITZROY ISLAND.
Only a 45-minute cruise from Cairns, Fitzroy Island is an unspoiled tropical jungle with huge volcanic rock formations. It is surrounded by coral reefs that create many superb diving areas. The resort offers a variety of accommodations and features a complete dive shop with resident instructors. Fitzroy is your chance to enjoy a virtually undiscovered paradise. For brochure, call (213) 381-3062.

nder Down Under.

REEF EXPLORER CRUISES.
For one of the world's truly awesome underwater spectacles, explore the Great Barrier Reef and the Coral Sea with Australia's longest-established dive boat service. Discover virgin reefs, thousand-pound marlin, rays and turtles as you sail aboard the 12-passenger Reef Explorer or 10-passenger Auriga Bay. For larger groups, the company also operates the 112-foot, 20-passenger Challenger. You can enjoy day dive trips from Cairns to the Great Barrier Reef on the Down Under, a 41-foot, high-speed catamaran. All vessels are available for charter. And they all have sophisticated navigational aids such as a satellite navigator to pinpoint submerged reefs, autopilot, radar, and echo sounder. Barry May, a pioneer of Australian dive tourism, is an expert at finding superior diving sites. For more information about Reef Explorer Cruises and its wide variety of dive packages, call *Dive In Australia,* (415) 421-5588.



MIKE BALL WATERSPORTS.
Watersport specializes in regular, guaranteed departures to the legendary Yongala wreck and Great Barrier Reef. E-6 processing, diver propulsion vehicles, sailboards and PADI specialty courses available on board. This very large, stable, air-conditioned dive vessel is owned by Australia's renowned diver training center, Mike Ball Watersports. Trips offer unlimited diving and exceptional value: 2 days $150, 4 days $445, 6 days $595. Call *Dive In Australia,* (415) 421-5588.



PORT DOUGLAS.
Located in tropical Port Douglas is Australia's northernmost fully professional diving facility serving the Great Barrier Reef. In a little over an hour, their 55-foot custom-built luxury dive boat will speed you at 25 knots to some of the best dive sites in the world. There you can enjoy stunning underwater scenery with the expert assistance of the boat's professional crew. The company also offers exciting land-based packages that include 4-wheel-drive Safaris through one of the world's last remaining virgin rain forests – a tropical adventure you will long remember. For more information, call *Sea Safaris,* (213) 546-2464.

HERON ISLAND.
The only diving resort situated on the Great Barrier Reef, Heron Island offers access to some of the world's finest diving. Full dive facilities include four dive boats and over 60 rental scuba tanks. Only 26 minutes from Gladstone by helicopter, Heron is the home ground of tame moray eels, friendly manta rays, sea turtles (seasonal), and a huge variety of fish and coral. This colorful sea life makes it ideal for underwater photography. Lodging is available to fit most budgets and includes three meals and two dives per day, as well as tanks, weights and air. For information, call (714) 786-0119.

INTERNATIONAL DIVING
i.d.e.
EXPEDITIONS

Red Sea
Live Aboard $1800
Land Safari $1000

Papua
New Guinea
$1750

Truk & Palau
$1600

Philippines
$1800

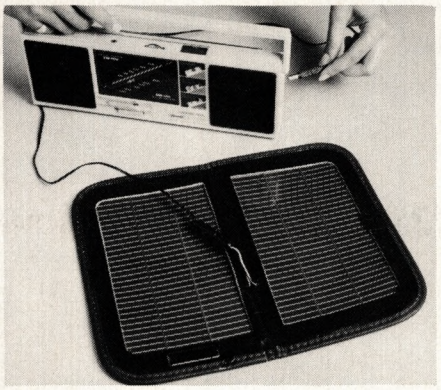
Australia
$2500

Fiji
$1500

Call or write for brochure:
15477 Ventura Blvd., Suite 101
Sherman Oaks, California 91403
(818) 788-3326
Toll Free Outside California
(800) 321-4658

SUN PAL

The Sun Pal line of portable solar electric generators from Sovonics Solar Systems provides free electric power for outdoor use. It is a versatile system, capable of powering electrical devices from radios and televisions to CB radios and video



equipment. Sun Pal also allows you to use the sun to charge batteries.

Sun Pal's photovoltaic cells convert light directly into electricity for DC power without noise or pollution. The device represents a breakthrough in solar technology that allows portability. Compact, light, flexible and rugged, Sun Pal can be taken to the beach or out on the water. Its flexibility and the inclusion of grommets enable easy adjustment to achieve the best angle to the sun for peak power.

For more information, contact Sovonics Solar Systems, 1100 West Maple Rd., Troy, MI 48084 or call (800) 843-3892 and ask for "Scuba."

CLUB COZUMEL CARIBE PACKAGE

The Club Cozumel Caribe is offering an all-inclusive resort experience. An extensive refurbishing program of the 250 room facility has been completed as well as the installation of a modern, complete dive operation.

Besides the normal inclusions of transfers, all tips and taxes, the Club Cozumel Caribe includes membership fees and offers guests a range of full American plan accommodations. An open bar and unlimited wine with meals are included. Also included are sports activities ranging from snorkeling and tennis to sailing and fishing trips. The Robinson Crusoe cruise, moonlight cruise and nightly entertainment are part of the program.

Free scuba diving for certified divers is included. Each dive departure includes two tanks and all gear except regulator, backpack and buoyancy compensator. One dive trip is included in a three night stay. Two are included in four, five or six night stays. Three are included in a seven night stay. Any additional trips, as well as night diving, may be purchased at rea-

BELIZE

EXOTIC* ZONE

*Exotic: Excitingly or strikingly different and/or unusual...Webster



LA STREGA will take you diving in exotic areas virtually untouched by man or woman. There *is* a hidden topical paradise - away from the crowed resorts and dive sites, where you can explore primitive beauty unequaled in the Caribbean.

LA STREGA - BELIZE'S largest and best equipped dive boat allows you the rare opportunity to experience that "out-post" atmosphere while enjoying civilized accommodations, exceptional food and air conditioned comfort. Enjoy the freedom of *always* being on the dive site - your assurance of **TRULY UNLIMITED DIVING.**

We offer **ALL INCLUSIVE** "no surprises" pricing, weekly departures and a variety of itineraries that allow you the freedom to choose from the best dive sites in Belize. To receive all the facts, our brochure and rates, call us Toll Free...

(800) 433-DIVE

Texas and Canadian residents call collect (713) 999-4852

LA STREGA

5818 Green Falls Dr. Houston, Texas 77088

sonable rates. A refresher course is offered at no additional charge for those divers who are a bit rusty.

The operation is fully equipped with more than 200 new tanks and two compressors with a third on the way. The professional dive staff includes two instructors and five divemasters. Resort and full certification courses are available.

Club Cozumel Caribe uses two 33 foot custom designed dive boats. With a maximum of 14 divers per craft, cruising speed averages 17 knots. Each craft has an open transom, dive platform, two ladders and flying bridge.

Further information and brochures are available at your travel agent or you can call Barbachano Tours at (800) 327-2254; in Florida (800) 231-1127 or (305) 662-5971.

U.S. DIVERS SALES REPS

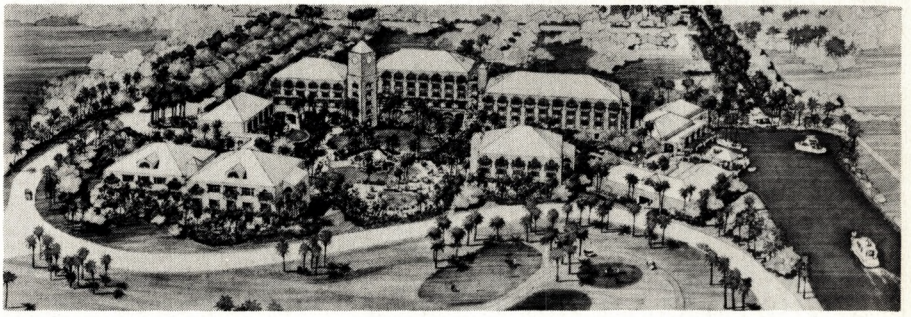
U.S. Divers has appointed two new representatives to the sales force. Joining the company are George Roseberry and Dave Stancil, both of whom have long experience in the diving industry. Roseberry will take over an expanded version of Lu Nelson's territory, centered in the Southwest. Nelson, a U.S. Divers salesman since 1956, is retiring this year. Stancil will cover the Great Lakes area.

Roseberry, a former corporate pilot, has been diving since 1962 and bought the first of his two dive shops in 1976. He has also been working as an aircraft broker and commercial pilot.

Stancil, a graduate of Georgia Tech, worked seven years as the manager of a dive shop and a PADI instructor in Hollywood, Florida. "Service is what sells products," said Stancil. "I've been on the other side of the table so I know what the dealer needs from his rep."

HYATT CAYMAN PACKAGES

The Hyatt Regency Grand Cayman is offering four, four day/three night packages, available through April 19. Special interest vacation choices include scuba diving, golf, honeymoon and an all around sports vacation offering.



The Hyatt Regency Grand Cayman is at Britannia just across from famous Seven Mile Beach. It has 235 air-conditioned rooms and suites. Features include an open air lobby, large free-form swimming pool with swim-up bar, a fitness trail, two hard surface tennis courts, meeting and banquet rooms. There are three restaurants. The private beach club will offer a range of watersport activities including snorkeling. Hobie Cats, windsurfers, pedal cycles and Sunfish sailboats are available at a nominal charge. There will also be another swimming pool for use by hotel guests at the Beach Club. Deepsea fishing, dive trips and excursions aboard the hotel's luxury 64 foot catamaran, *Spirit of Ppalu*, can also be arranged.

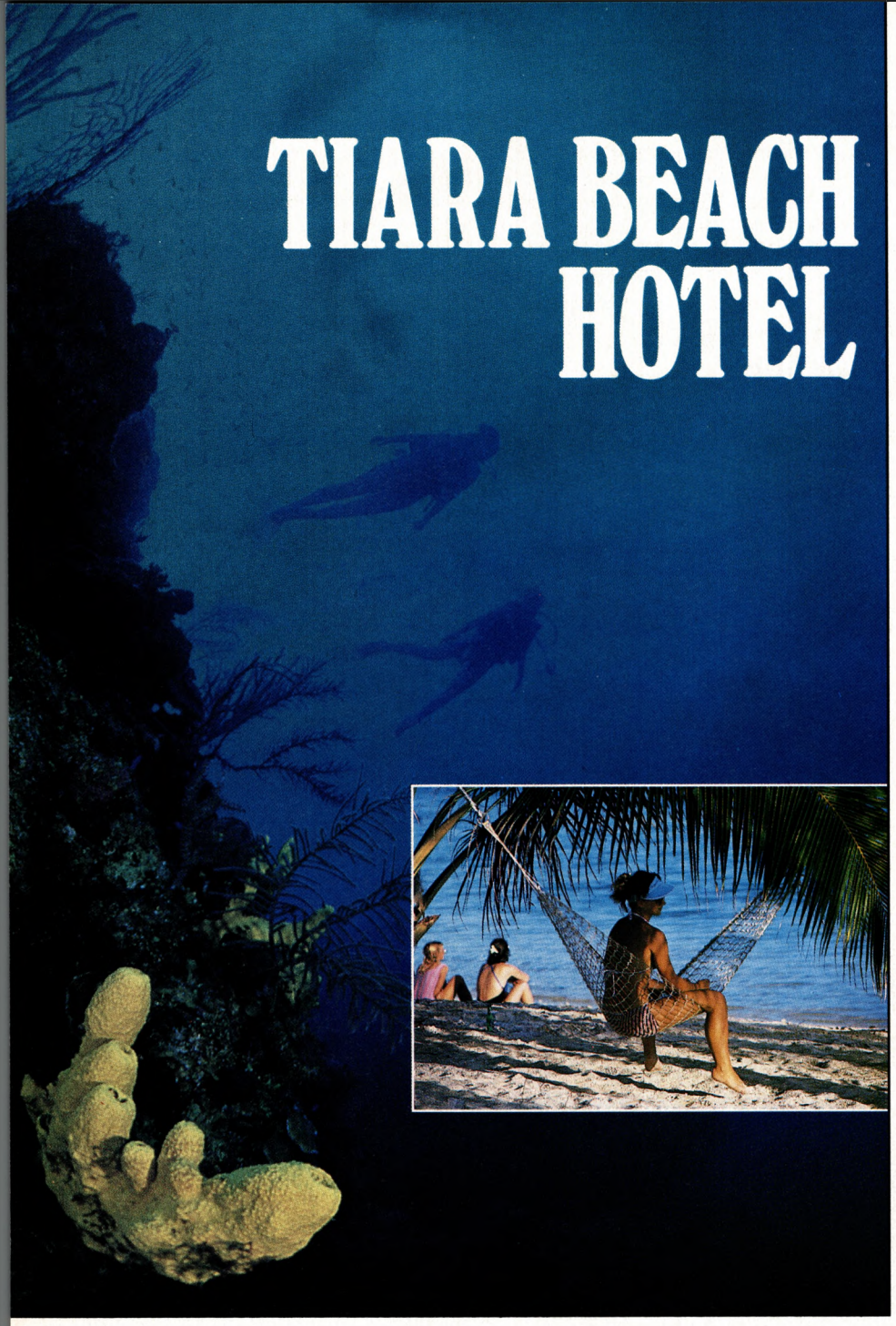
A four color brochure on the four vacation packages is available. For more information call the Hyatt worldwide reservation center (800) 228-9000 or write to the Hyatt Regency Grand Cayman, P.O. Box 1698, Grand Cayman, BWI; telephone (809) 949-1234.

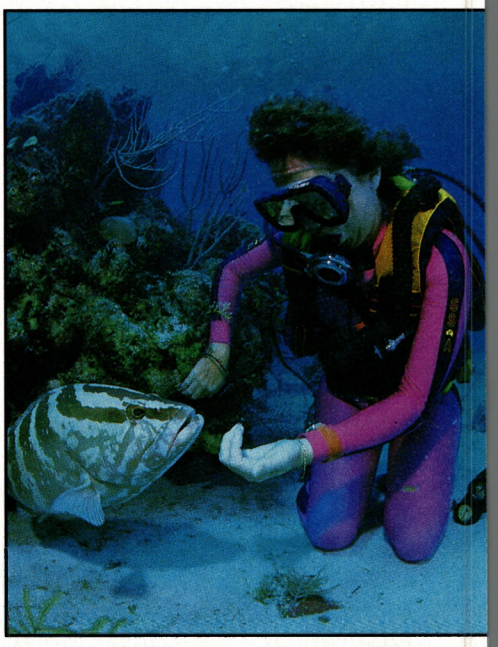


TIARA BEACH HOTEL

The Way The Caymans Used To Be

TEXT AND PHOTOGRAPHY BY GERI MURPHY





Tiara Beach Hotel has the classic setting of a tropical resort—fronted by a white sand beach. The diving is superb, highlighted by stunning walls. Left: The wall at Jackson Point, Little Cayman. Above: A tame Nassau grouper at Magic Roundabout Reef. Inset: Hotel guests can relax in hammocks on a peaceful sandy beach.



Tiara Beach rooms are on the beach, close to the dive boat pier.



The resort's two dive boats *Island Fever* and *Ocean Fever* are both fast and roomy.



Tiara Beach's freshwater swimming pool offers an alternative to the ocean.

I once heard Peter Hughes describe Cayman Brac as being "the way the Caymans used to be"—an island of tranquillity and Caribbean charm that has remained unchanged in the last 30 years. Less than 90 miles from the booming tourist mecca of Grand Cayman, this distant cousin offers a special appeal that is magic for divers.

Since just a little more than 1,000 residents occupy this 12 mile long island, there is no overcrowding. Brac has the atmosphere of rural countryside and the people are both sincere and friendly. To say there are no traffic jams is an understatement—one hardly sees another car on the well paved roads.

Brac is encircled by an endless line of splendid drop-offs, each unique, inspiring and different from the others. Underwater visibility regularly exceeds 100 feet and the marine life is lush. Next door is the neighboring island of Little Cayman, a Caribbean wilderness featuring such legendary drop-off dives as Bloody Bay Wall and Jackson Point. These sites are indeed awesome, yet within easy reach.

I have always enjoyed the Brac because each dive there has produced so many good underwater pictures. Today, I like it even more because it is a lovely retreat, untouched by commercial tourism and land development.

Since its purchase by the Divi Hotels corporation, Tiara Beach has undergone a wonderful transformation. It has become a top rated diver's resort, designed and staffed by professionals who know precisely what the vacationing diver seeks. Hotel manager David Feinberg is a 20 year veteran of dive resorts in Bonaire, South Caicos and Tahiti.

Tiara Beach is one of the most tropical looking beach hotels in the Caymans. The motif is a deliberate blend of Polynesian decor and natural Caribbean beauty. Subtle use of thatch palm, bamboo furniture and tapa design wallpaper makes you feel as if you had stepped into a romantic South Seas resort. While the 30 guest rooms are air-conditioned, the rest of the resort is not. There is really no need for it since the hotel is right on the beach and blessed with the gentle breezes of the trade winds. Guests spend much of their time outdoors; there is no insect problem on this island. Lunch is served buffet style at the beach, under the spreading branches of a 200 year old seagrape tree. Candelight dinners are served poolside.

The first rule of the house at Tiara Beach is to remove your city shoes upon arrival and not put them back on until departure. This is definitely a barefoot resort where T-shirt and shorts are the official dress of the day. Sandals and a hat are optional. Some guests wear little more than a swimsuit and T-shirt for the entire week, so pack light.

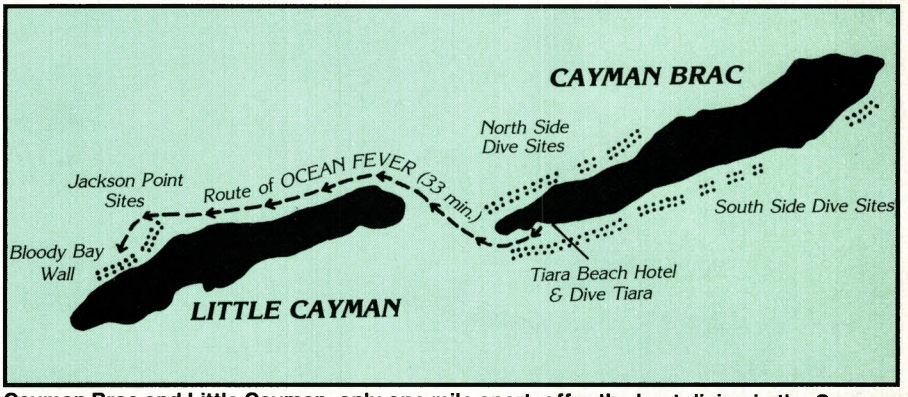
In the late afternoon, guests often gather at the outdoor Turtle Pier Bar. It is at the end of a long finger pier jutting out into the lagoon. This is the best spot for catching a cool breeze and watching spectacular sunsets. It is here divers enjoy a thirst quenching beer and swap stories about their diving adventures.

While the atmosphere is informal, Tiara Beach is a very well put together hotel featuring a freshwater swimming pool, boutique, conference room, slide shows, bicycles and all sorts of watersports equipment. Tiara is just completing construction of a new wing of deluxe rooms with satellite TV, telephones and private spas. A major tip-off that Tiara is a real diver's resort is the offering of a one week all-inclusive dive package including air fare, room, diving, three meals daily and all drinks. There are no extra charges and no surprises at check-out time.

DIVE TIARA

One of the things that distinguishes the Tiara Beach Hotel from other beachfront resorts is the ultra efficient Dive Tiara. Designed and built by Peter Hughes and his competent staff, this operation is really slick. And, Dive Tiara manager Craig Burns keeps it running like a Swiss clock.

A large, T-shaped dive pier has been built out into the lagoon. The foot of the pier is conveniently placed just a few steps from the guest rooms. Upon arrival at this resort, dive gear is immediately transported to the pier where it is securely housed in the guest's storage locker. Also housed at the end of the pier is a very impressive air fill station where more than 100 scuba tanks are filled and rotated daily.



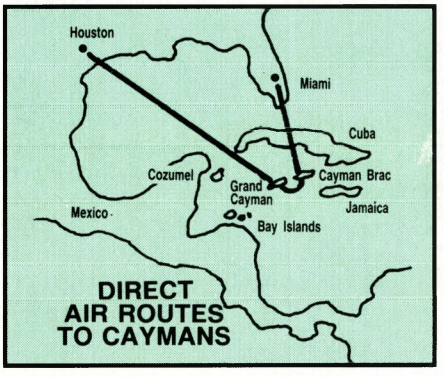
Cayman Brac and Little Cayman, only one mile apart, offer the best diving in the Cayman Islands. Dive sites at both are within easy reach of Tiara Beach boats.



Cayman Airways Trilander



Cayman Airways jet



Riding at anchor just a few yards out from the pier are Dive Tiara's three super fast dive boats: *Island Fever*, *Ocean Fever* and *Brac Fever*. Ranging in length from 36 to 40 feet, these three craft are powered by twin diesels and can travel up to 30 miles per hour. Each boat will comfortably seat 18 to 20 divers. This works out to approximately one guest seat for every bed at the resort.

One of the major attractions of Dive Tiara is the staff's service oriented policy. A guest never picks up a tank nor has to

CAYMAN ISLANDER... A DIVERS DEN

across from Seven Mile Beach, at Bonus Prices.

BONUS DIVE PACKAGE $499* 8 DAYS/7 NIGHTS DOUBLE

With BOB SOTO'S DIVING

*Prices are subject to change without notice and do not include a 6% room tax or 10% service charge. Package valid Dec. 15/86 - April 24/87.



An off beach hotel for Smart Divers, the Cayman Islander Hotel offers air conditioned superior rooms with satellite T.V., fresh water pool, Poolside Bar and Cafe...The hotel is located only a few yards from one of the most beautiful beaches to be found anywhere... The best diving in the Caymans is done with Bob Soto's Diving Ltd., which features a fully equipped dive shop on the premises...Enjoy our **BONUS FILLED BONUS DIVE PACKAGES** featuring: room, full breakfast daily, round trip transfers from the hotel to your dive boat, unlimited shore diving, six days of two tank morning boat diving, one night or afternoon boat dive per stay, tanks, weights, weight belt and dive master. For further information contact our U.S. Sales & Reservation Office—**USA 800-922-7555, FLA 800-423-7555...** 5821 Hollywood Blvd., Suite 203, Hollywood, FL 33021.

Bob Soto's DIVING LTD.

BONUS SPECIAL

Mention this ad when making your reservations and **receive free**, upon arrival at the hotel, a Bob Soto's T-Shirt. Also ask about our **BONUS PRICES** for three and five night packages.

Cayman Islander

GRAND CAYMAN, B.W.I.

TIARA BEACH

lug a heavy gear bag. The guest's dive gear is loaded onto the boat each morning and the divemaster sets up each person's tank, regulator and BC jacket. As a guest, you simply step onboard and go diving! Incidentally, the staff is punctual; the boats depart on time.

Once underway and out the barrier reef channel, the dive boats literally fly across the waves. Travel time to most sites around Cayman Brac averages 10 to 15 minutes and the boats choose either the north or south side of the island depending on wind and wave direction. The boats tie up to reef site moorings that have been established by the Cayman Islands Marine Park. Entry into the water is as convenient as boarding the boat. Dive guests step up to the stern and sit down on the dive platform while the divemaster





locates their scuba gear in the rack and helps slip it onto their shoulders. This kind of service can really spoil you.

DIVE SITES

Another significant change at Cayman Brac over the last three years is the diving has actually *improved*. Chief divemaster Colin Tozer and his crew have expanded the range of dive sites and established twice as many new locations. Dive Tiara now takes guests to 18 different sites on the south side and 14 sites on the north side of the island. During a full week of diving, no site is repeated unless specifically requested.

At least one-half of the new sites are spectacular wall dives featuring marvelous sponge formations, sheer vertical walls and a lot more fish action. Since the

establishment of the Cayman Islands Marine Parks program, the divemasters have developed fish feeding stations and dive guests are entertained by a whole menagerie of tame groupers, turtles, angelfish and other characters. Underwater visibility on the wall dives is exquisite—often 100 feet or more.

CAYMAN BRAC TRAVEL FACTS

Location	—89 miles northeast of Grand Cayman, 450 miles due south of Miami
Size	—12 miles long/ 1 mile wide
Elevation	—140 feet/bluff at east end
Airport	—Paved/large enough to accommodate 727 commercial jet airliners
Air Service	—Cayman Airways 727 service from Miami Cayman Airways Trilander from Grand Cayman
Entry	—U.S. citizens require current passport, birth certificate or voter's registration card
Population	—1,000+ residents
Language	—English
Currency	—Cayman dollar = U.S. $1.25 U.S. dollars/credit cards accepted
Electricity	—110 volts AC/60 cycles (same as U.S.)
Climate	—Between 80 and 90°F year-round
Dress	—Casual: T-shirt, shorts sandals
Shopping	—Island crafts, black coral jewelry, T-shirts, casual clothing, sundries
Sightseeing	—Blackbeard's caves, the bluff, museum, black coral craftsmen
Hotel	—Total of 30 rooms/air-conditioned, on the beach, south side of island, near the airport

Of course, the high point of the week at the Tiara Beach Hotel is a trip to Little Cayman. The *Ocean Fever*, one of Tiara's supersonic dive boats, can make the 18 mile trip from the dive pier to Bloody Bay in 33 minutes. I know because I timed it! Bloody Bay wall is considered one of the most spectacular wall dives in the Caribbean. The top of the drop-off starts at the incredibly shallow depth of 20 feet and the wall is absolutely sheer. Growing out from this awesome undersea cliff is a splendid array of brilliant yellow tube sponges, red finger sponges, large black

CAYMAN BRAC

dive Tiara

PETER HUGHES

DIVE TIARA AT THE

DIVI TIARA BEACH HOTEL



BLOODY BAY WALL

The Peter Hughes diving system has proven to be the model for Caribbean scuba operations. 31 years of diving experience have gone into the custom designing of dive boats as well as into the professional training of the dive staff. These outstanding elements combine to give you the ultimate in underwater adventure, the Peter Hughes dive experience.

Dive Tiara's complete hassle-free dive catering system leaves more time for the the diver to dive.

Below the surface of Cayman Brac's gin clear waters is the magnificent vertical wall that encompasses the entire island, the home of giant barrel sponges and a rare variety of brilliantly colored tropical fish.

The 42-room Divi Tiara Beach Hotel is situated on Cayman Brac's most gorgeous palm-fringed beach. With tennis, freshwater pool, sailboards, paddleboats and bicycles, Divi Tiara has just what you need to complete a memorable dive vacation.

Dive Tiara and leave the fuss to us.

DISCOVER OUR CARIBBEAN

CALL 800-367-3484

FULL COOPERATION WITH DIVE PROFESSIONALS AND TRAVEL AGENTS

DIVI HOTELS MARKETING INC., 520 W. STATE ST., ITHACA, N.Y. 14850, 607-277-3484

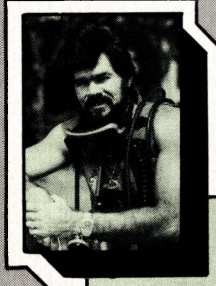
Peter Hughes Diving

TURKS & CAICOS

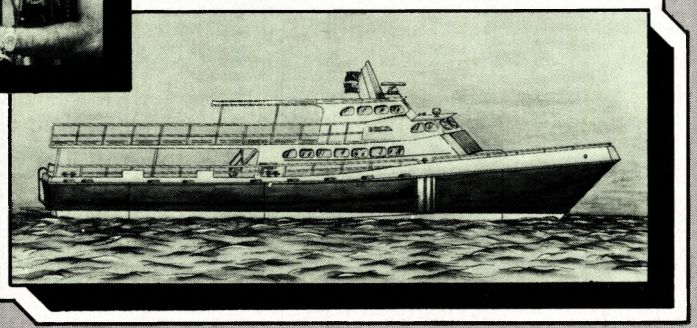
PETER HUGHES

Sea Dancer

TURKS & CAICOS ISLANDS



THE LAST BASTION OF A TRULY VIRGIN DIVING FRONTIER



Peter Hughes Diving and Divi Hotels are pleased to announce the beginning of a new era in Caribbean diving adventure as the 110' Sea Dancer takes to the untouched peaceful waters of the Turks & Caicos, an archipelago of eight large islands with exquisite sugar sand beaches and numerous small cays, the walls of its waiting reefs harboring a magnificently prolific sea life of corals, sponges, sea turtles and hundreds of varieties of tropical fish.

Peter Hughes has combined his talent and more than 30 years of experience in the design of this extraordinary "floating dive resort." He's taken the barefoot elegance of Divi Hotels and matched it with the hassle-free diving Peter Hughes Diving is famous for to create a diving liveaboard of unparalleled efficiency, comfort and beauty.

Experience for yourself a one-week exploration on Sea Dancer... the dive escape of a lifetime. Discover the last bastion of a truly virgin diving frontier."

Sea Dancer, the Caribbean's most luxurious diving liveaboard, features:

- Eight twin-berthed double cabins plus four master staterooms, three with queen-size beds, all air-conditioned.
- Complete unlimited diving freedom, with on-board compressors that allow unlimited airfills. Tanks, backpacks, weights and weightbelt are provided.
- On-board photo lab for daily E-6 processing.
- Comfortable alfresco dining above deck.
- Zodiacs for quick and easy trips ashore.
- Additional watersports equipment including sailboards.
- Mini-boutique.
- Professional and personable service that you're accustomed to at other Peter Hughes Diving operations.

From **$995.** Per person. Price includes meals, non-alc. beverages, unlimited diving, roundtrip transfers, and govt. room tax. 7 days/6 nights, Sun.-Sat., twin-berthed double cabin.

CALL 800-367-3484.

DIVI HOTELS MARKETING INC., 520 W. STATE ST., ITHACA, N.Y. 14850, 607-277-3484

Peter Hughes Diving

TIARA BEACH

coral trees and many more types of marine growth. Visibility here often exceeds 150 feet. There are at least six different dive sites along Bloody Bay wall that merit exploration.

Another impressive area at Little Cayman is Jackson Point. This is generally the location of the second dive of the morning. Of the seven dive sites in this area, my favorite is Magic Roundabout, where divers are greeted by friendly groupers, angelfish, turtles and moray eels. After the second dive it's back to the Tiara Beach Hotel in time for lunch. The advent of Dive Tiara's super fast boats has made Little Cayman a convenient one-half day trip.

After spending one week at the Tiara Beach Hotel I suspect you will agree with Peter Hughes: Cayman Brac is the way the Caymans used to be—only better.

For more information about booking your vacation and flights to the Brac, contact: Divi Hotels Executive Office, 520 West State St., Ithaca, New York 14850 or call U.S. toll free (800) 367-3484; in New York, (607) 277-3484.

3,000 FOOT DIVE

The more adventurous at heart and those who have already completed an 800 foot submarine dive with Research Submersibles Ltd. off Grand Cayman Island can now dive to 3,000 feet over the famous Cayman wall.

A scientific research, salvage and tourist attraction, RSL has been operating off the Cayman Islands for the past three years. However, it has been only in the last year it has offered tourists a chance to view the unique deep world underwater here. More than 2,000 persons have taken advantage of this opportunity.

For more information write RSL, P.O. Box 1719, Grand Cayman, BWI or telephone (809) 949-8236.

DIVE MAUI

Dive Maui, a full service dive operation in Lahaina, Hawaii, is offering daily boat diving at Molokini crater, Lanai and the Maui coastline, with a guarantee of no more than six divers per vessel. Leslie Sternberg, owner of the six year old Dive Maui, says that limiting the boats to six divers assures a charter that is more responsive to the needs of individual divers. Dive Maui's 25 foot Radon and new 26 foot Privateer are staffed with captain and instructor at all times. Every dive is led by experienced guides.

A condo/diving package is being offered. For more information, contact Leslie Sternberg at Dive Maui, Inc., Lahaina-luna at Front Street, Lahaina, Maui, HI 96761; (808) 667-2080 or (808) 661-4363.

This is Anthony's Key

Seductive and tantalizing Anthony's Key Resort. What appears to be a Gauguin painting is really the most beautiful seclusion for divers and dreamers in the world. Natural wood bungalows spill along a verdant hillside and across a palm-studded islet. A small dory transfers guests over a blue lagoon to the hillside restaurant.

Aboard a custom dive boat you have a choice of one, two, or three single-tank dives per day. There are two boat night dives per week and the crystal lagoon invites you to enjoy unlimited shore diving.

Learn about the gentle art of underwater photography (E-6 processing daily) or schedule your own underwater video production. Later in the week our famous West Bay Picnic will treat you to the most beautiful beach scenery this side of Tahiti.

Topside, there is tennis, horseback riding, windsurfing, sunfish sailing, canoeing, blue-water fishing and, our newest attractions: the casino, dockside restaurant and "Splash Dance" disco.

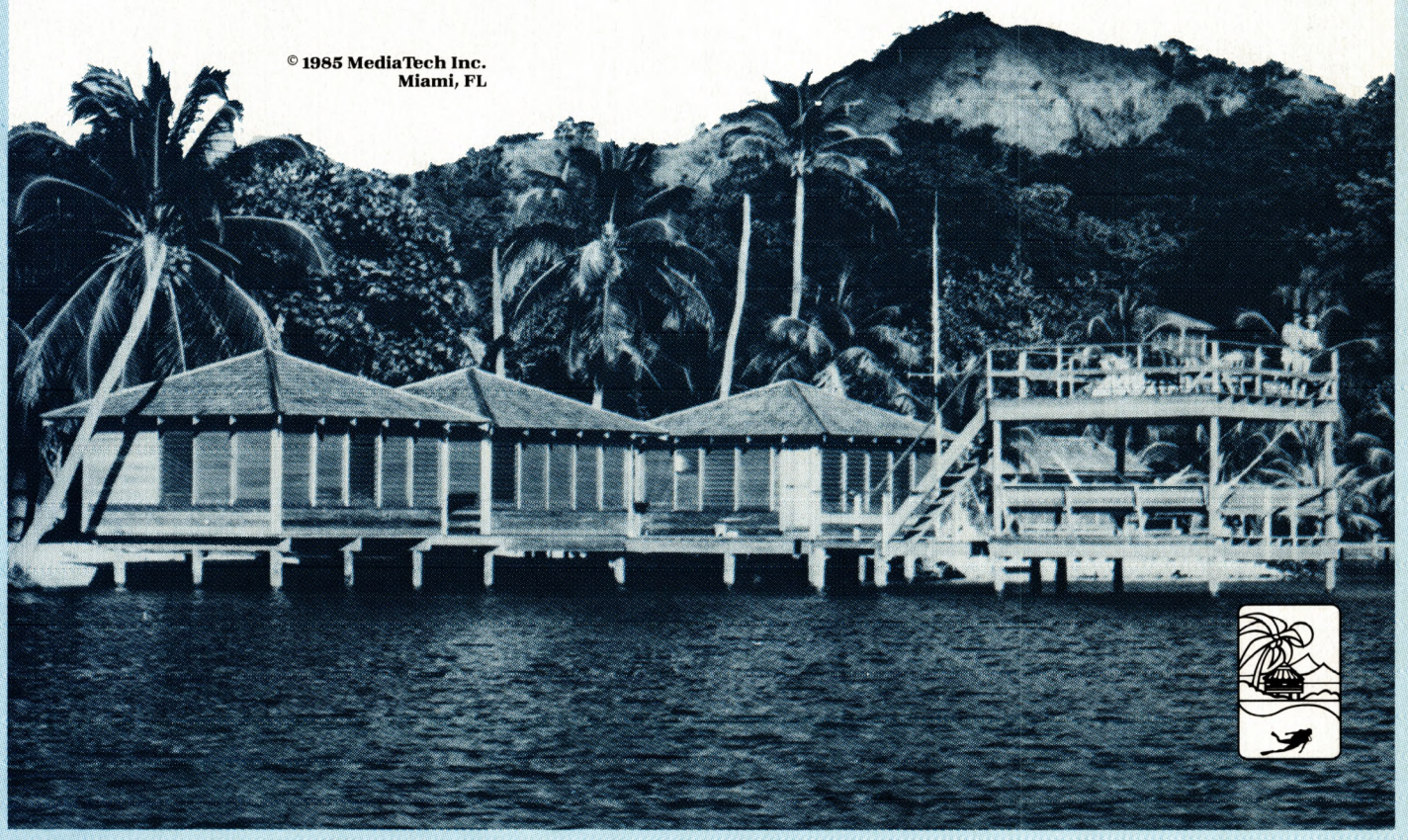
Write or call today for details of a 7-night ticket to paradise.



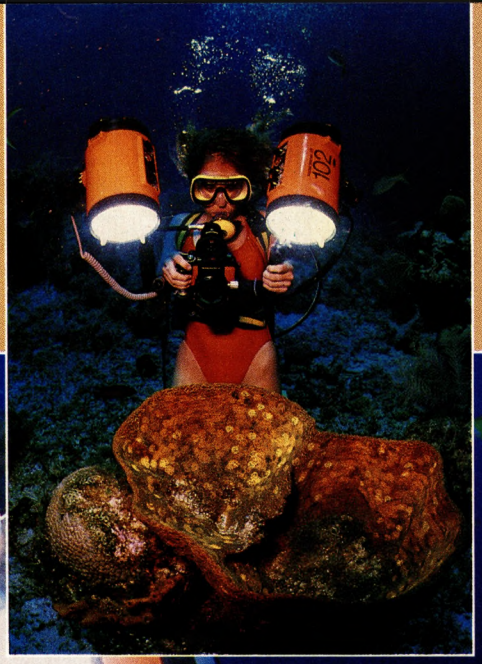
Stunning pillar coral formation 5 minutes from AKR dock.

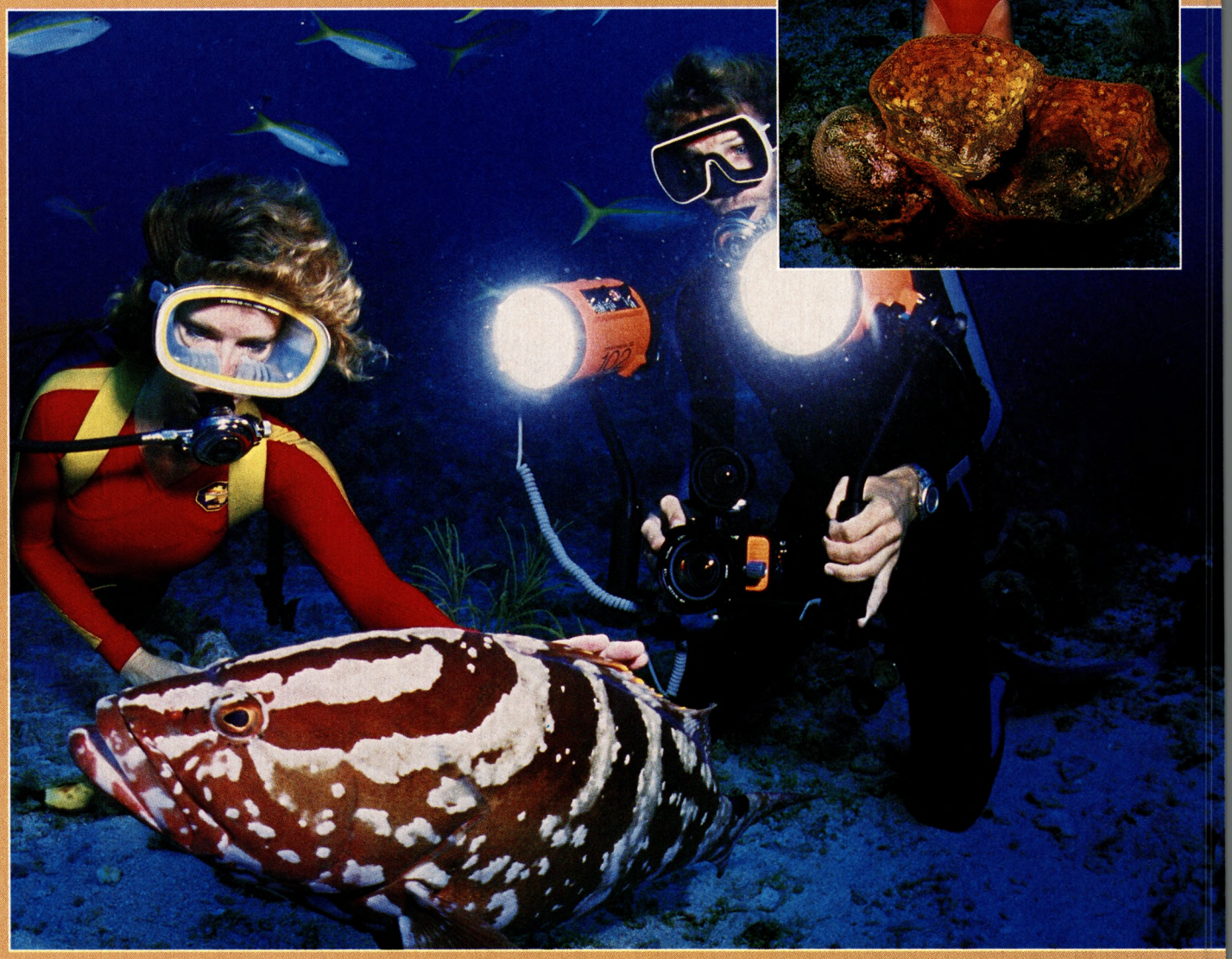
The finest dive resort in the Western Caribbean

Anthony's Key Resort
Roatan • Bay Islands • Honduras
US Executive Office
1385 Coral Way Ste. 302
Miami, FL 33145
1-800-227-3483 (DIVE)
National toll free
1-800-343-3483 (DIVE)
Florida toll free
1-305-858-3483 (DIVE)
Florida direct



Anthony's Key RESORT





Belle Of The Bay Islands

TEXT AND PHOTOGRAPHY BY RICK FREHSEE

The tropical sun rises fast over verdant hills, painting the lush landscape a thousand shades of green. A waking breeze creeps over the translucent emerald lagoon, gently shaking the calm surface like a bowl of lime jello. The hard light soon reaches little Anthony's Key, turning the grove of palms a golden tan. Overhead, puffs of pink-tipped cumulus clouds move west toward the Honduras coast. Beyond the wind-feathered reefs a gray ocean turns turquoise blue. By 7:00 am the September day is already hot and the little bungalows on the key begin to emit hungry divers heading to the breakfast table.

Since dawn, our crew has been working on a special photograph in the lagoon with a huge sea turtle. Besides the turtle, there is a photographer, a model and an assistant. Serious photographers will appreciate this early morning mission: It is important to catch the right light in the quest for a perfect photograph.

Anthony's Key Resort is a photographer's dream. I came here in 1973 on one of my first professional assignments and I have been coming here ever since. This visit I have a double duty—preparing this article and instructing 40 guests in a special Nikonos Technique Underwater Photography Seminar. Roatan, in the Bay Islands, is a perfect example of total trop-

ical expression. The island is heavily forested and incredibly picturesque—rolling and peaked hills carpeted in luxurious green foliage cascade into a crystal sea. Shallow fringing reefs surround the island, often within swimming distance from shore. Drop-offs are continuous and echo the profile of the shoreline. The system is a continuation of the western barrier reef extending from Mexico to South America—generally regarded as one of the most dramatic and prolific reef structures in the world.

AKR began as a dream. During the second World War, a young soldier by the name of Paul Adams passed through the Bay Islands in a troop carrier. As he came to the northwestern end of Roatan, the mesmerizing vision of two perfect palm-studded islets appeared (Bailey's Key and Anthony's Key). This unforgettable vision of tropical splendor affected him deeply: On the spot he vowed he would someday, somehow, return to this perfect paradise.

More than 20 years later, in 1967, Adams returned to Roatan. Shortly afterward he purchased the land, including the two islets, and began to plan and construct Anthony's Key Resort. In fits and starts the resort developed, always closely following Adam's mandate that every square inch blend with the surroundings and not interfere with nature. Island bungalows of natural wood were constructed on the key and a main house with restaurant, lounge and observation decks was built on a hillside on the main island overlooking the lagoon and the two keys. A wooden dock was built at the edge of the lagoon, along with additional support buildings. By 1972, AKR was semi-established as an escapist's hideaway, a wilderness experience and a resort that proudly proclaimed this was "the way the Caribbean used to be."

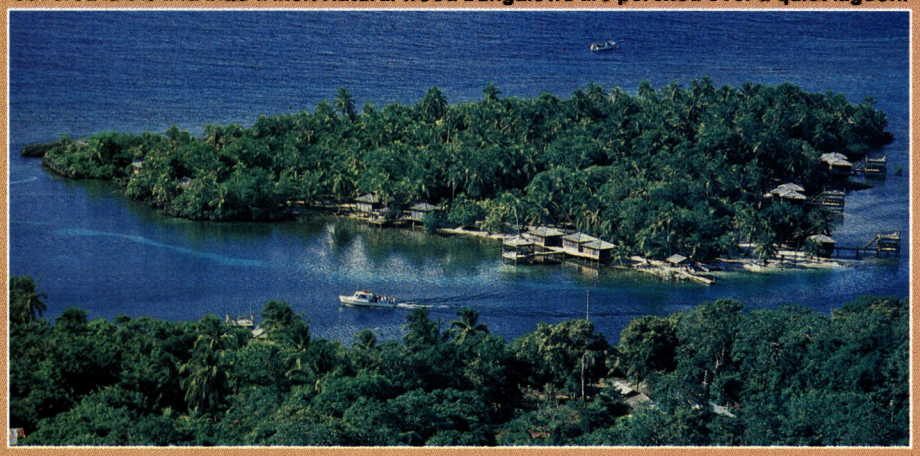
In 1981, the enigmatic Paul Adams passed away and leadership and responsibility for Anthony's Key eventually came to Julio Galindo, a young, influential Bay Islander who was Adam's protege and confidant. During the last years of Paul Adams' life, Galindo had, in fact, managed the resort.

Today, little has changed in concept. There are now 44 guest bungalows, arranged in singles, doubles, triples and quads across the key and up the verdant hillsides on the main island. There are several more buildings dockside: the dive shop, compressor building, storage room, gift shop and photo facility. The five 40 foot custom dive boats dockside can easily handle a maximum of 80-90 guests. Tennis courts have been added. Observation decks and walkways connect bungalows and main buildings. A small dory ferries guests to and from Anthony's Key (bungalows), Bailey's Key (swimming and sunbathing) and the main island (more bungalows and buildings).

A new addition is the casino complex, a long, low building on the mainland, a minute's walk from the resort. Outside, on familiar wooden decking, is the new restaurant, sharing evening meal duties with the established restaurant on the hill. Inside there is the Casino Royale, complete with blackjack, roulette, slot machines and wheel-of-fortune. Adjacent is the spacious Splash Dance disco. The casino and disco are almost the only concessions to conventional nightlife on the island and have quickly become Roatan's "in" spots. There's a lot of fun going on, especially on weekend nights, and the

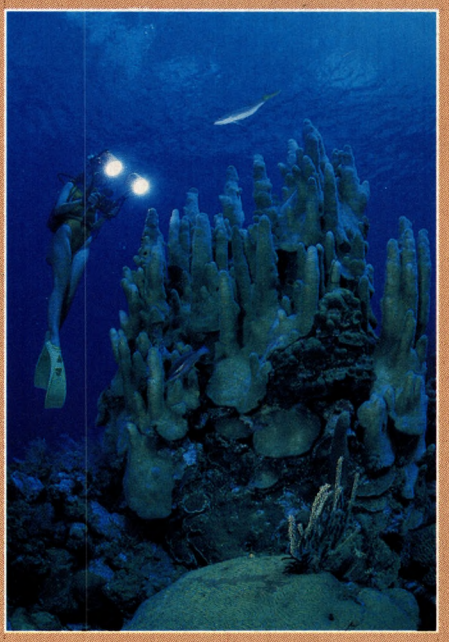
(Continued on Page 98)

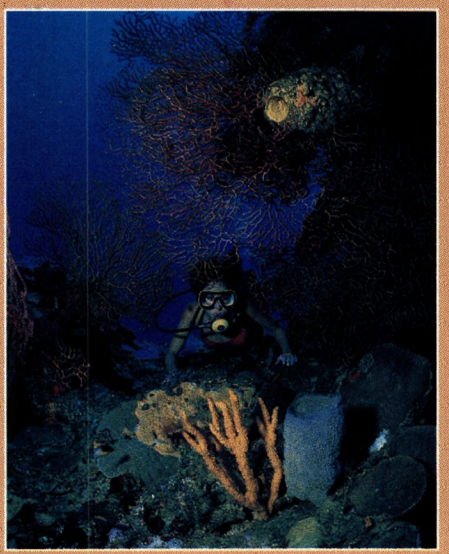
Anthony's Key Resort is a photographer's dream. Verdant hills plunge down to palm covered islets and blue water. Natural wood bungalows are perched over a quiet lagoon.



Underwater, Anthony's Key offers equally impressive photo potential. Dive sites have fantastic relief and an impressive selection of colorful marine life. Opposite page: Charlie Kafer and Barbara Gent photograph Rambo the Nassau grouper; Kathleen Reinman photographs a yellow basket sponge at Half Moon Bay. Right, top to bottom: The Tunnel, near Bear's Den; huge, vertical formation at Pillar Coral; coral forest, Eagle's Perch, Overheat Reef.







SPRING SELECTION OF WORLD CLASS DIVE DESTINATIONS

TEXT AND PHOTOGRAPHY BY CARL ROESSLER

Springtime adventures await divers in remote, unspoiled destinations such as the Philippines, Red Sea, Sudan and Fiji, where wild creatures and colors combine to create memories. Live-aboard boats offer multi-day access to these sites.

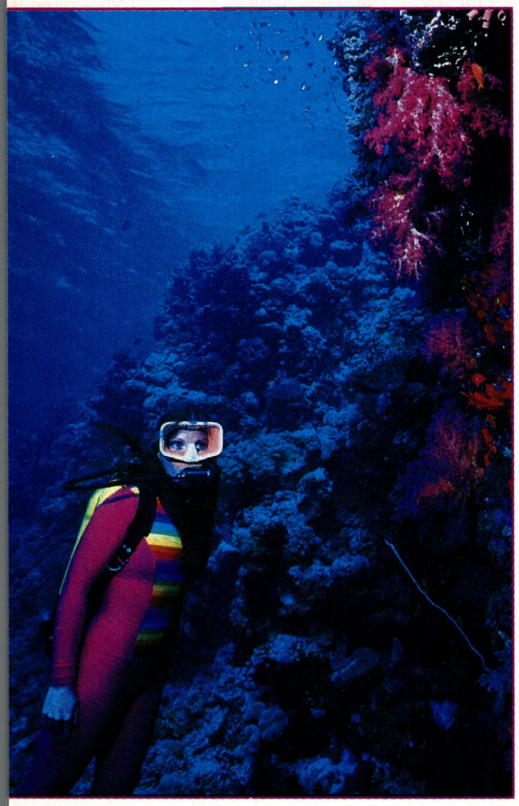


Jessica Roessler and lionfish/Philippines

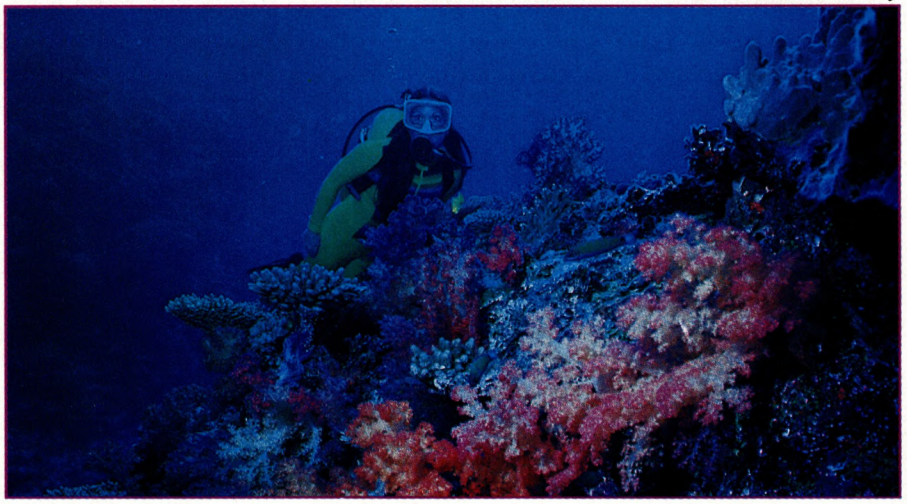


Shallow reef/Red Sea

Blue water and coral formations/Sudan



Colorful soft corals/Fiji



In spring, a diver's thoughts turn to visions of crystal waters, palm trees and reefs that beckon the winter-bound imagination with their majesty and splendor.

Several areas of the world come into their own in spring: the Caribbean is beautiful and calm, Micronesia (Truk Lagoon and Palau) can be sensational and life in the Galapagos is at its peak during these charmed months.

Colonna II and *Colonna IV* will ply the warming waters of Sharm-el-Sheikh. *Colonna II* welcomes See & Sea groups of three to six, while *Colonna IV* can handle ten. They're great in tandem—16 divers can enjoy a wonderful adventure together on the legendary reefs of the Sinai.

As the water temperature crosses the mid 70s the weather turns wonderful and I can't help but dream of Jackson Reef, two immense wrecks (the *Umbria* and the Toyota Wreck); Jacques Cousteau's famed Starfish House, built in 1952; two prime spots to take shark pictures easily; and coral reefs just like their famed counterparts at Sharm-el-Sheikh.

See & Sea's groups of up to 16 travel aboard the massive 110 foot *White Elephant* between dives in 83°F crystal wa-

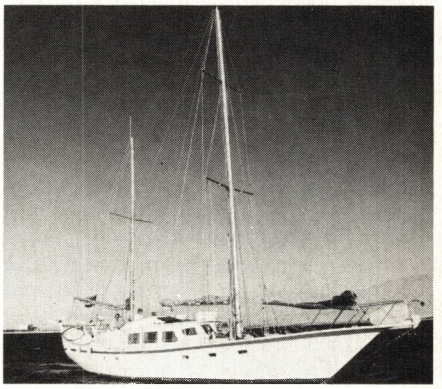
(Continued on Page 100)

...Philippines Red Sea Sudan Fiji

ADVANCED TRAVEL



***Tristar*/Philippines**



***Colonna II*/Red Sea**

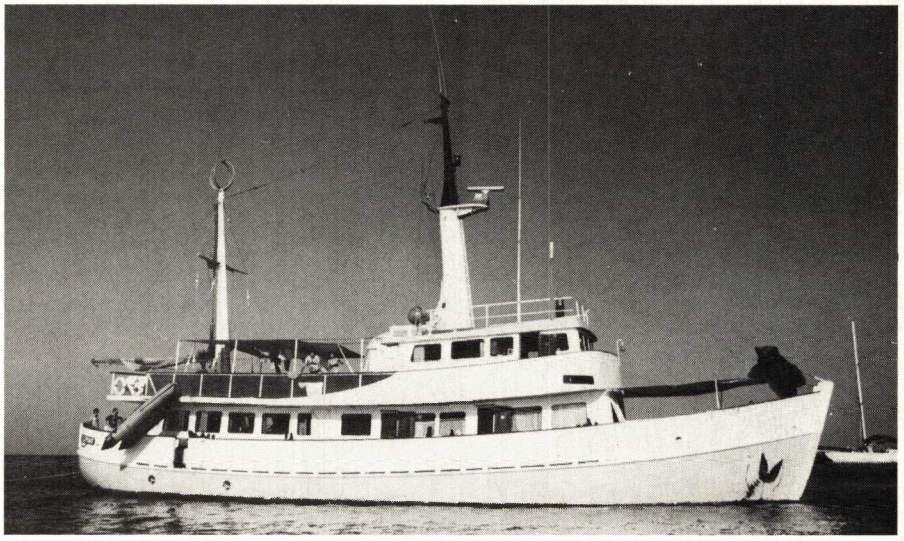
When I think of spring, though, certain destinations come unbidden to mind. I experience a tremor of excitement, the rustling and stirring of memories from past adventures.

THE PHILIPPINES

If it's anytime between Christmas and the first of June, I know the sun is pouring down on some of the most profusely populated reefs on the planet. *Tristar*, a 120 foot luxury cruiser, and *Maverick*, a 46 foot private cruiser, will be filled with happy divers at this time. Between the two vessels See & Sea can fit great diving into almost any schedule. *Tristar* can accommodate up to 20 divers on three spectacular 12 day cruises: March 16-29, April 13-26, May 11-24. *Maverick* offers total flexibility, with charters of any duration for two to four divers between December and June. And now, See & Sea can even combine your Philippines diving with diving in Palau or Truk Lagoon. I can't help but dream of my own Philippine dives: Will the cuttlefish be laying their eggs again? Will the manta ray soar above us? Will the two giant black frogfish be by the same sponge? Will the crocodilefish be on the deck of the Japanese wreck? Will the thresher shark come by again? I wonder . . . .

THE RED SEA

As the spring flowers bloom, I know the winter chill will fade from the Red Sea.



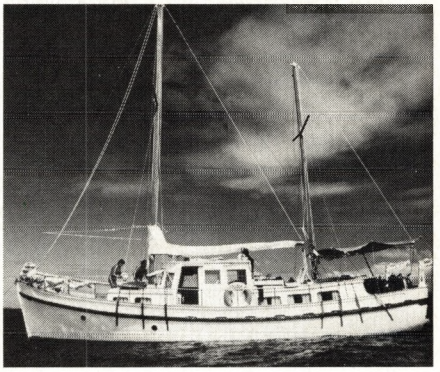
***White Elephant*/Sudan**

Ras Muhammad, the Temple: Is that giant Napoleon wrasse called George still taking handouts at Ras Muhammad? Do hundreds of cornetfish still gather in the shimmering shallows at Jackson? Will the huge red Spanish dancer nudibranchs still browse at night on the Temple? Are those thousands of flashlightfish still cascading into the darkness at night at Ras Muhammad? I wonder . . . .

THE SUDAN

Farther south in the Red Sea, in the Sudan, See & Sea will have divers enjoying

***Sta Reta*/Fiji**



ANTHONY'S KEY

(Continued from Page 95)

distance prevents interference with the peaceful resort ambiance.

Besides scuba, daytime diversions include small boat sailing, windsurfing, canoeing, tennis, horseback riding and island tours. One day each week a special event occurs—the West Bay Picnic—an all day celebration. It begins with a dive boat armada that departs for the 30 minute journey right after breakfast. With a spectacular West End wall dive completed, the merry divers land at one of the most beautiful stretches of creamy white beach that can be imagined. Under a grove of palms, singles, couples and groups picnic, play volleyball, snorkel or swim and absorb the atmosphere of this special place in the Caribbean sun.

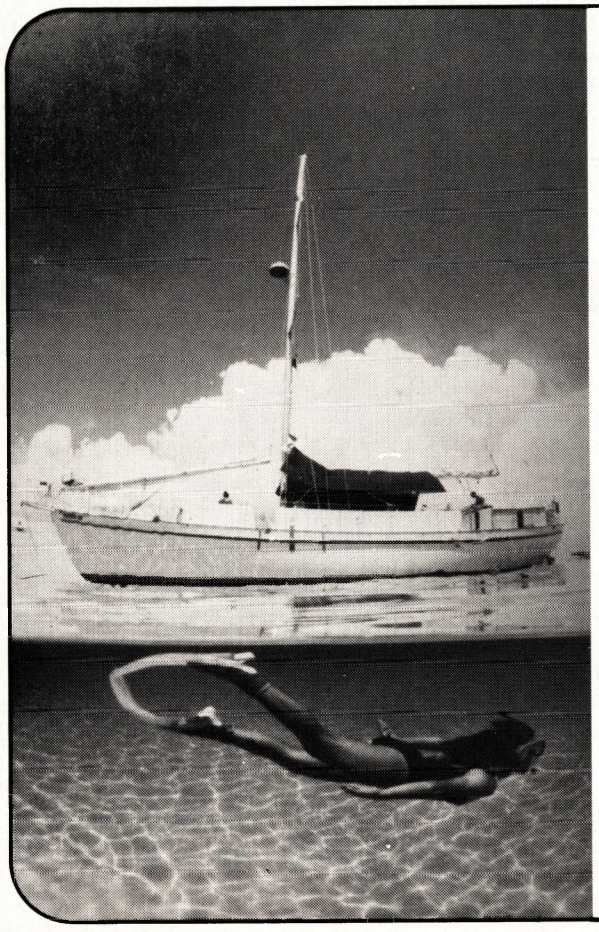
On the other mornings, our first dive (about 8:30 am) may begin at a site such as Overheat Reef, about 10 minutes from the resort. An impressive feature of most of the dive sites around Anthony's Key is the topography and this area is typical. Dissecting the massive reef are deep cracks and crevices resulting in clefts, ledges, undercuts, tunnels and cathedrals of huge proportions.

In the shallows at Overheat, beneath nuggets of coral, are small clusters of delicate, gelatinous tunicates. The little yellow-rimmed tubes are perfect macro photography subjects. Tucked between the posts of a 1:1 macro framer they make excellent close-up portraits.

Perpendicular to the drop-off and extending into the sea is a section of deep reef known as the Eagle's Perch. This mammoth promentory is decorated with black coral "trees," large deepwater seafans and large and colorful sponges, suggesting a fantasy world. Divers drifting beneath look like spacewalkers exploring a forbidden planet. Where the pinnacle protrudes from the wall is a sponge imitating a coral; a candelabra shaped golden sponge, soft to a gentle touch, looking exactly like a branch of staghorn coral. Schools of vibrant royal grammas and black cap basslets flit about this enchanted forest. Unusual invertebrates include red gorgonians with ghostly white polyps, bushlike yellow gorgonians with frothy red polyps and a two inch long yellow-fringed nudibranch.

The AKR dive boats return to the dock after each dive, allowing our photographers to deposit slide film at Photo Roatan for processing. Anthony's Key has the only first class photographic facility in the western Caribbean, run by pros Charlie (or Chaz) Kafer and Barbara Gent. Charlie and Barbara, transplants from Maryland, have managed Photo Roatan two years and offer state-of-the-art E-6 processing, photo and video instruction and a rental and repair program. The two have quickly become the focal point of photography at the resort. Chaz maintains and repairs equipment for guests, narrates the weekly environmental slide show and helps plan dives for photographers. Barbara teaches the photo courses and models for photographs. Their knowledge of local sites and interesting marine life is one of the most important contributions to a week's visit. Fujichrome and Ektachrome film is developed after 2:00 pm each day and usually returned in protected strips for viewing on the lightboxes in the photo lab. Examination of each frame allows important adjustments to be made the following day.

The second dive of the day begins at 10:30 am and is at a pretty site a short distance from West Bay—such as a spot called the Shallow Eel Garden and its adjacent mini-wall. The area is bathed in gin clear water and resembles the inside of Palancar Reef off Cozumel. In 20 feet of water along a sloping white sand bottom are popcorn shaped heads of coral, festooned with rope sponges and purple seafans. On the sand slope are the waving bodies of slender eels. Timid, they are wonderful to see but difficult to photograph. Perpendicular to the wall, the coral heads are striated with well formed sand channels leading to a midwater drop-off. Beneath ledges and overhangs are small clusters of painted tunicates, also perfect for 1:1 or 1:2 macro photogra-



Blackbeard's

Sail/Dive Cruising In The Bahamas

"The Best of Both Worlds Above and Below"

• 3 dives a day • beach parties
• island exploration • out-island nightlife
• shell collecting • sailing • fishing
• lobster hunts • lazy days • virgin diving

Nobody Has More Fun —

Blackbeard's Cruises
P.O. Box 66-1091, Miami Springs, FL 33266
Toll Free (800) 327-9600 • Florida
Florida (305) 888-1226

phy. Along the midwater drop-off are huge and unusual basket and barrel sponges in a variety of colors and azure vase sponges sporting an iridescent pink-purple glow. Out in the sea there are the periodic visits of schooling jacks and chubs; solitary tiger groupers seek feeding stations in coral hideaways. Endless parades of creole wrasse, blue chromis or blue tangs are common.

After the second boat dive, lunch is served on the dining terrace on the hill. Evening meals, along with the very popular Friday seafood buffet, are served at the newer deck restaurant in the casino complex overlooking the resort lagoon. There is emphasis on local cooking alternating with popular continental cuisine. Seafood and local fruits and vegetables are featured whenever possible.

The afternoon dive, the third dive of the day, may be spent at such a site as popular Halfmoon Bay. Walls and drop-offs are common and continuous along the craggy northshore reefs, but Halfmoon is special partially owing to Rambo the Nassau grouper. Photo pros Charlie and Barbara found Rambo at his cleaning station in a grotto in the midreef and over a period of weeks coaxed him into becoming a friend. Rambo has become the prince of his coral hamlet and an AKR ambassador of good will. With the Nikonos Close-Up Kits on the 28 and 35mm lenses, I photographed the gobies and cleaner shrimp that would dance across his face and penetrate his open gills. The wide angle/close-up view was equally astonishing as Rambo spread his jaws in a yawning gesture—a firm invitation for cleaning action to begin. Barbara and Kathy Reinman posed with Rambo only inches away from their facemasks and Charlie began taking his own close-up and wide angle shots. Seldom can a diver find a more charming creature than a tame Nassau grouper. After more than 30 minutes taking photos, Rambo finally lost his sense of humor, nipping Barbara's fingers—surely his way of scolding her for not bringing him any food.

A special attraction for photographers and sightseers has recently been arranged at Anthony's Key. For years, at several places in the Caribbean, we have often designed "critter boxes" for collecting small marine invertebrates that may be difficult for beginning photographers to find. Anthony's Key offers the first full-size critter pen in the lagoon at the resort. Not unlike the pens used by professional film teams for temporarily holding medium and large sized marine creatures, the AKR pen is regularly stocked with groupers, turtles and nurse and reef sharks. To the delight of sightseers, the animals have been liberated from local fishermen's nets and purchased by the resort. The pen is a constant attraction. As the stock is increased with new acquisitions, the animals are eventually released back into the environment. We borrowed a huge hawksbill turtle (appropriately called Sherman) from the critter pen for photography. After several days of shooting, Sherman would eat scraps of food from my hand.

Roatan is an unspoiled wilderness. The Bay Islands are still a little difficult to travel to, which has protected them from most commercialism. There is no TV, no traffic, no shopping centers, no superhighways and no crowds of tourists to interrupt a perfect tropical fantasy. Anthony's Key Resort is the largest and most popular dive resort in the Bay Islands, but compared to the rest of the Caribbean, it is small and intimate.

With the new airport, Roatan will someday be as accessible as Cozumel and the Caymans. Perhaps it would be a good idea to get here before the crowds do. Some things should never change.

Roatan is serviced by Tan Sahsa, the main carrier, which flies 727 and 737 jets from Miami, Houston and New Orleans. One plane change is necessary on the mainland with DC-3 service daily to Roatan. Information and complete reservations for Anthony's Key Resort are available through selected wholesalers and at the AKR U.S. Executive Offices at 1385 Coral Way, Suite 302, Miami, Florida 33145. You can telephone (800) 227-3483 or in Florida (800) 343-3483 or (305) 858-3483. Jean D'ascoli is the pleasant and knowledgeable manager of reservations.



Recommended to all our sleepwalking guests





Incredible shore diving by day or night right off the hotel



Only 20 yards from your room to the water

SUNSET HOUSE

Grand Cayman's Hotel For Divers By Divers.

Call Sally on **1-800 854 4767** and discover more.

IT'S SPRING

(Continued from Page 97)

ter. *White Elephant* ranges from the Toyota Wreck, 60 miles north to Sanganeb Reef, 20 miles east of Port Sudan. The saloon, sundeck and cabins are terrific, the food, delicious and the diving is truly the stuff of dreams: Have those red encrusting sponges covered the Toyota trucks scattered about the great wreck? Is the shimmering cloud of anchovies still in Cousteau's shark cage? Do the shark sites still deliver 20 photogenic semitame sharks every dive? I wonder . . . .

FIJI

And finally, as I dream on, spring comes to Fiji. Captain Eric sails *Sta Reta* back from New Zealand after the typhoon season ends. The water becomes clearer and cooler, resembing the vodka clarity of Australia's Coral Sea. At Great Astrolabe Reef, the clear water laps those astounding walls that plunge vertically right from the surface. At the greatest of all, the Color Wall, dazzling soft corals in every color cascade down the precipice.

Sta Reta is 40 feet long and very homey. For three to five divers it offers the most private, most personalized, most wonderfully memorable dive cruise. I've seen people literally in tears at having to leave her when the cruise ended. So when I think of *Sta Reta* and Fiji the dreams rustle again: Are those 500 horse-eye jacks still under the stone arch? Is that incredible clownfish guarding a patch of new eggs atop the Color Wall? Are the turtles gliding by? And, the giant grouper, is he still in the canyon? He must weigh 600 pounds! I wonder if he's still there . . . .

Dreams of spring stir like loving ghosts. Possibilities of life's greatest adventures tug at the corners of your workaday mind. You look out the window and a mirage of palm trees dances above the snow-packed earth. You know it's true. In spring anything is possible.

For those of you who would share my dreams in your living room, buy my new book *Coral Kingdoms*, a photo essay describing the world's greatest diving.

For those who wish to experience these adventures in person, write See & Sea Travel, 50 Francisco Street, Suite 205, San Francisco, CA 94133; or (800) DIV-XPRT. In California call (415) 434-3400.

SCUBA SCHOOLS OF KONA

5 DAYS DIVING $299
CONDO CAR PKGS. AVAILABLE

DON'T GET LOST IN A CROWD!

Dive Hawaii

- COMFORTABLE 25' DIVE BOATS
- 6 DIVERS OR LESS PER BOAT
- OPTIONAL SPORTFISHING & PRIVATE CHARTERS
- DAILY TRIPS TO BEST SPOTS ON MAUI, LANAI, MOLOKAI & KONA!!
- COMPLETE EQUIPMENT SALES, SERVICE, RENTALS

SCUBA SCHOOLS OF MAUI

CALL OR WRITE

S.S. OF KONA
P.O. BOX 4190
KAILUA-KONA, HI 96745
808-329-2661

S.S. OF MAUI
1000 LIMAHANA PL.
LAHAINA, MAUI, HI
808-661-8036

skin diver takes you diving every month

SURFSIDE·SURFSIDE·SURFSIDE

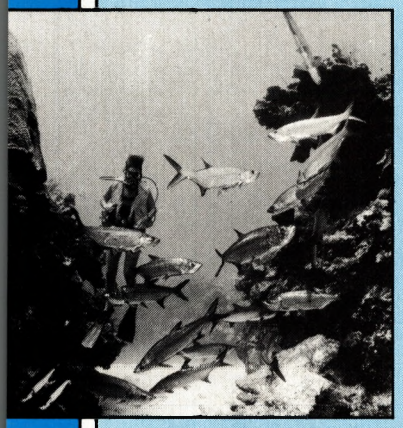
7 MILE BEACH **RUM POINT** **STATIA**

GRAND CAYMAN

SPLIT-ISLAND PACKAGE

Now you can have the best of both sides . . . introducing Surfside's Dive & Drive Condo Connection. Cayman's first package for those who want to dive both Seven Mile Beach and the famous North Wall with the added freedom of your own car included! Dive with Cayman's complete watersports operation, Surfside Watersports Ltd., and enjoy the luxury accomm. at the Christopher Columbus on Seven Mile Beach and the Retreat at Rum Point on the North Side.





Package Includes:
- 4 Nights @ Christopher Columbus
- 3 Nights @ The Retreat at Rum Point
- Taxes and gratuities, 1 WEEK CAR RENTAL
- 4 Two-tank a.m. dives on west side
- 2 Two-tank a.m. dives on north side
- Tank, backpack, weights, belt
- 1 a.m. dive transferable to night dive
- Unlimited Shore Diving

**Rate charges are U.S. dollars
**Rates are per person Quad occupancy

COMBO CONDOS: CHRISTOPHER COLUMBUS & THE RETREAT

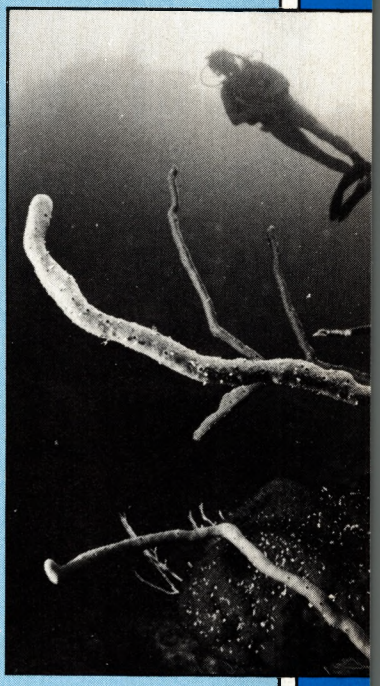
$679.00 Diver
$439.00 Non-Diver

FOR MORE INFORMATION CALL TOLL FREE
1-800-468-1708
1-717-346-6382 IN PENNSYLVANIA

GRAND CAYMAN

NORTH WALL PACKAGE

Dive the famed North Wall on Grand Cayman's Tranquil North Side!



Package Includes:
- 7 Nights Accomm.
- Taxes and gratuities
- 6 two-tank a.m. dives
- Tank, backpack, weights, belt
- 1 a.m. dive transferable to night dive
- 1 WEEK CAR RENTAL
- Rates are per person double occupancy
- Unlimited Shore Diving

VILLA CARIBE HOTEL

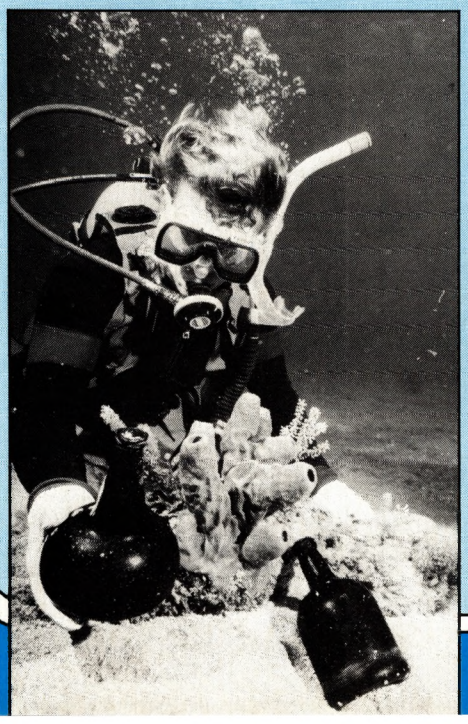
$668.00 Diver
$428.00 Non-Diver

THE RETREAT DELUXE CONDO

$751.00 Diver $511.00 Non-Diver

Winter/Spring 1987 Dive Package
Effective Dec. 15, 1986-April 20, 1987 Prices per person Quad Occupancy
Double occupancy rates available

FOR MORE INFORMATION CALL TOLL FREE
1-800-468-1708
1-717-346-6382 IN PENNSYLVANIA



ST. EUSTATIUS

ST. EUSTATIUS, THE MOST HISTORIC ISLAND IN THE CARIBBEAN

Surfside's dive operation on "Statia", offers you diving in someplace very special, unlike anywhere else you have ever been. This is a place with an incredible Maritime history. A place where the diving is untouched and waiting to be explored. Call us for more information. The excitement is just beginning!

A number of packages available from as low as

$557.00 Diver $317.00 Non-Diver

FOR MORE INFORMATION CALL TOLL FREE
1-800-468-1708
1-717-346-6382 IN PENNSYLVANIA
OR WRITE: SURFSIDE WATERSPORTS, U.S.A.
1838-40 NORTH MAIN AVENUE
SCRANTON, PA 18508

800 FT WALL DIVE



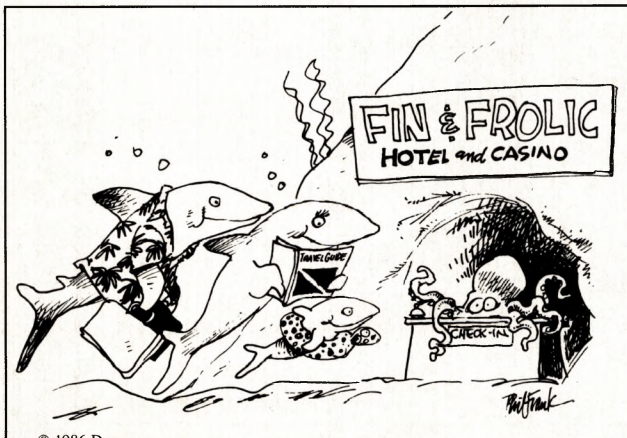
PHOTOS BY GERI MURPHY

...an incredible experience



- Explore the new frontiers of inner space—experience the exotic, dazzling and dramatic life forms on the Cayman Wall to 800 feet!
- Join the professional crews of our deep diving submarines on daily expeditions beyond the limits of scuba diving in complete safety.
- Our submarines are dry and at one atmosphere throughout your dive—so no previous diving experience is necessary.
- A unique opportunity for every photographer and marine enthusiast—truly a "once in a lifetime experience."
- Each trip is personalized with only two passengers and a pilot—book now to avoid disappointment.

NOW OPERATING 2 SUBMERSIBLES
For More Information And Bookings, Contact:
RESEARCH SUBMERSIBLES LTD.
P.O. Box 1719, Grand Cayman, BWI
TEL (809) 949-3870, 949-8296
TELEX 4519 RSL-SUB CP



© 1986 Dean

Going on a Caribbean vacation? The 1987 Diver's TravelGuide helps you plan the perfect Caribbean trip for the entire family.

Send for our—

FREE BONAIRE GUIDE

Divers' TravelGuide
2269 Chestnut, # 321
San Francisco, CA 94123

LA MER/SOUTH PACIFIC

Now, South Pacific visitors can enjoy first class accommodations both on land and sea. La Mer Diving Seafari, Inc. of New York has initiated live-aboard diving excursions by chartering the newly built, 65 foot motor yacht *Telita*. It has five large air-conditioned cabins and equipment for 10 days of unlimited diving.

Operated by owners Bob and Dinah Halstead, the *Telita* offers a year-round program designed to visit the best diving sites during optimum conditions: the Solomon Islands in January-March, Madang (Papua New Guinea) and the Bismarck Sea in April-June, Kimbe and Rabaul in July-September and the Trobriand Islands and the Louisiade Archipelago in October-December.



The La Mer program includes two nights in Sydney, Australia. Extensions onshore to see the exotic sights of Papua New Guinea can be arranged.

For information contact La Mer Diving Seafari, Inc., 823 United Nations Plaza, Suite 810, New York, NY 10017; (800) 348-3669, in New York City (212) 599-0886.

NAUI RATINGS

With the implementation of new industry standards, NAUI has deleted the scuba diver rating from its progression of training. NAUI's entry-level course is now the Openwater I scuba diver.

Information on the requirements for the new course is contained in the new standards section of the NAUI *Pro Manual*. This section was mailed to all NAUI instructors in September. Instructors who did not receive the new standards may obtain them from NAUI headquarters.

Clarification of the new standards is available from the training division at NAUI headquarters.

So YOU Thought YOU Couldn't Afford SEE & SEA?

SEE & SEA gives you more and better diving at affordable prices.



CAYMAN ISLANDS
8 days $1095



PALAU
10 days $2200



FIJI
10 days $1700



PHILIPPINES
11 days $1900



BELIZE
8 days $995



TRUK LAGOON
8 days $1750



BAJA CALIFORNIA
8 days $995



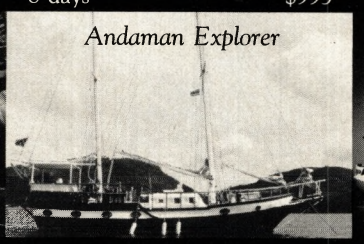
PHILIPPINES
11 days $1900



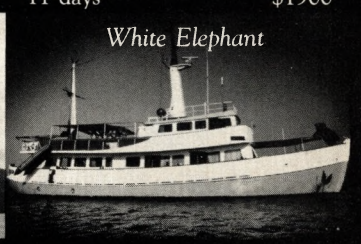
RED SEA
10 days $1600



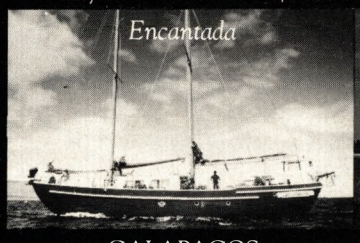
GREAT WHITE SHARK
11 days $7000



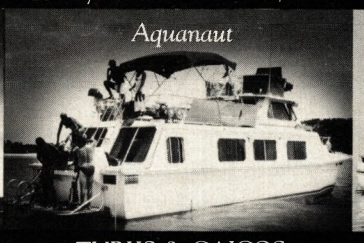
THAILAND
10 days $1900



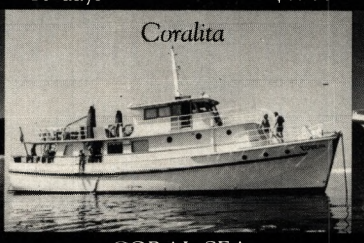
SUDAN
16 days $2600



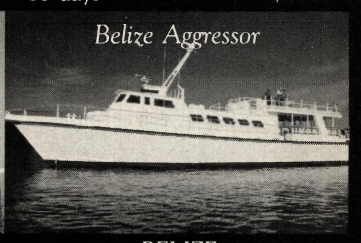
GALAPAGOS
11 days $1900/17 days $2900



TURKS & CAICOS
8 days $1100



CORAL SEA
10 days $2450



BELIZE
8 days $1095

Since 1966, See & Sea has led the world of live-aboard diving adventure. Let the world's premier dive travel expert design your vacation!

See & Sea Travel, Inc. exclusively represents the world's finest fleet of dive cruisers as well as booking the world's leading shore-based dive resorts. See & Sea will not represent any vessel that won't deliver excellent food, personal comfort and service and unlimited diving. Join us in Belize, the Solomons, the Caymans, Turks & Caicos, Maldives, Red Sea, Truk Lagoon, Thailand, Fiji, Philippines, Papua New Guinea, Galapagos, Palau, Australia's Coral Sea and our Great White Shark expedition.

Insist on the finest; insist on See & Sea diving adventures.

Call or Write NOW!

1966 TWENTY YEARS OF SERVICE TO DIVERS 1986

See & Sea
TRAVEL SERVICE, INC.
50 FRANCISCO ST. STE. 205
SAN FRANCISCO, CA 94133
TELEPHONE (415) 434-3400
TELEX 278036 SEAS UR

CALL THE DIVE EXPERTS 1-800-DIV-XPRT



8 DAY 7 NIGHT PACKAGE INCLUDES:

• ACCOMMODATIONS • 3 MEALS DAILY • 3 BOAT DIVES PER DAY • UNLIMITED USE OF TENNIS COURTS • HOTEL TAXES AND GRATUITIES • AIRPORT TRANSFERS •
SPECIAL CHARTER FLIGHTS AVAILABLE EVERY SATURDAY FROM FT. LAUDERDALE

701 S.W. 48th Street, Ft. Lauderdale, Florida 33315

1-800-272-1492

Florida and Canada Call

1-305-761-1492

Looking for something to do while your friend plays *Sea Hunt* in the Caribbean? The 1987 Divers' TravelGuide explores the entire Caribbean, both above and below the waterline.

Send for our—

FREE BONAIRE GUIDE

Divers' TravelGuide
2269 Chestnut, # 321
San Francisco, CA 94123



AQUA-TREK/FIJI

Fiji's newest scuba operator, Aqua-Trek, is now operating at Plantation Island Resort, just a 40 minute boat ride from Nadi International Airport. Offering a wide variety of packages for all levels of divers, the specialty of the organization is teaching first time divers. Aqua-Trek supplies everything the neophyte needs, including instructor, guided dive tours, equipment rental, underwater still and video photography instruction and trips on a custom built 36 foot dive boat that can travel at up to 30 knots.

Aqua-Trek is on Plantation Island, off the coast of Fiji's main island. Plantation also offers windsurfing, tennis, water skiing, beaches, a restaurant and well stocked bar. Nearby are world class surfing, sportfishing and the new Coral Coast Railway. The Plantation Island Resort/Aqua-Trek package is a ten day program that includes air fare from the U.S. West Coast, transfers, double occupancy accommodations, diving instruction and use of all equipment.

For groups of experienced divers, there are 15 day live-aboard boat diving excursions to Astrolabe Reef on the 72 foot *Mollie Dean*. The group package includes a gourmet chef on the boat, accommodations on Plantation Island and rooms at Pacific Harbor Resort as well as transfers and air fare.

For more information on the above programs and a brochure detailing all Aqua-Trek's offerings, call (800) 228-8747 in California or (800) 227-8747 outside California. You can write to the Aqua-Trek American booking agent, The Adventure Center, 5540 College Ave., Oakland, CA 94618.

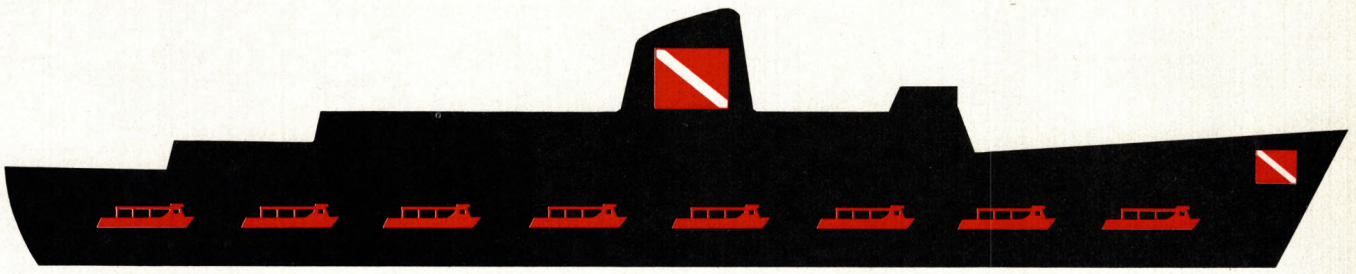
TROPICAL ADVENTURES/TONGA

After one and one-half years of research and planning, Tropical Adventures Travel now has complete air/land/dive packages from North America to the remote South Pacific island group of the Kingdom of Tonga. Tonga offers diving in probably the world's most extensive underwater cave systems.

Typical dives here offer the opportunity to photograph the rare Spanish dancer, plate corals up to 18 feet across, large anemones with up to 20 clownfish, profuse reef fish life and underwater visibility commonly in the 150-200 foot range.

Resorts and dive operators incorporated into the program include Fafa Island Resort, Royal Sunset Resort, Tongan Beach Resort, Coralhead Divers and Vava'u Watersports. For further information and bookings contact Tropical Adventures Travel, 170 Denny Way, Seattle, Washington 98109 or phone (800) 247-3483.

What's better than a 35-ft. dive boat? Eight of 'em aboard a 414-ft. cruise ship!



Everything Divers and Non-Divers Expect In A First-Class Vacation.

Imagine the excitement of four dives a day at exotic Caribbean sites like Palancar and Chinchorro in Mexico; Lighthouse, Glover and the barrier reefs in Belize . . . *without* arriving at a foreign airport! In fact, getting there is half the fun. Come aboard our own luxury cruise ship for a truly unique dive/cruise vacation. We sail every Saturday from jazzy New Orleans. Join us this spring and savor the pleasures of first-class cruising—spacious staterooms, gourmet dining, dancing, live entertainment, and casino gambling. And while you're getting wet, non-divers will enjoy shore excursions and daily ship activities. The cost? Less than you'd expect. Call us today for details.

Experience the Ultimate: The Dive/Cruise Vacation

OCEAN QUEST INTERNATIONAL

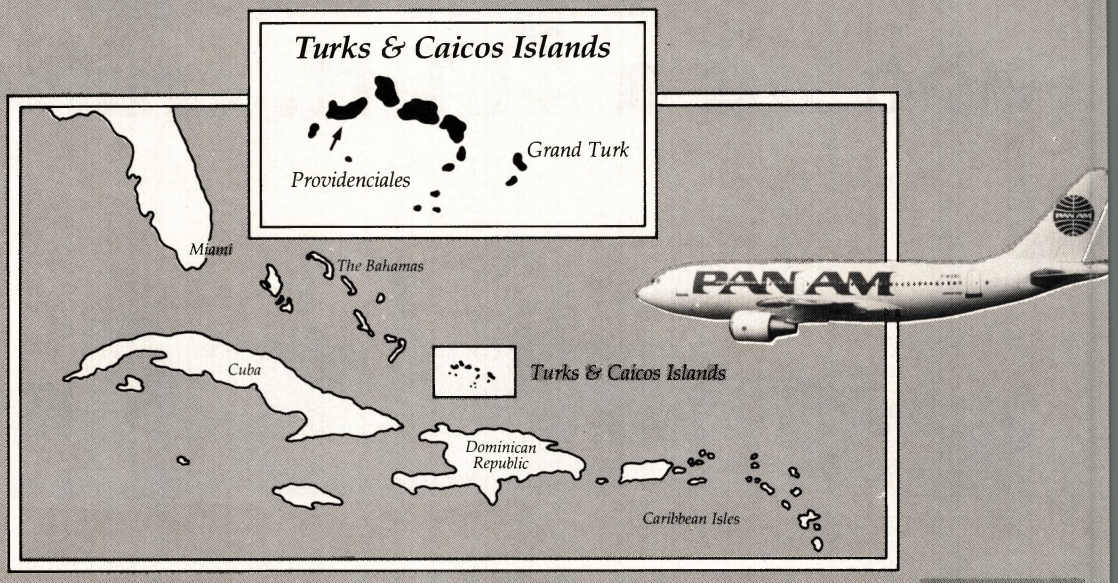
THE DIVE / CRUISE COMPANY

P.O. Box 8592, Mandeville, LA 70448 • In Louisiana, Call 504-626-5922

1-800-338-DIVE

TURKS &

A world of virgin reefs, brilliant marine life, Mantas, Eagle Rays and fabulous dropoffs . . . the last unspoiled diving in the Caribbean.



For more information, contact the
TURKS & CAICOS TOURIST BOARD
121 S.E. 1st Street • Suite 510 • Miami, Florida 33131
305-577-0133 • 800-441-4419

If you're looking for the best, Dive Grand Turk with Turks Island Aquasports

Mike Spillar, the most experienced dive operator on Grand Turk, proudly announces the opening of Turks Island Aquasports offering the best of everything!

- Mike's Expertise
- Incredible Reef and Marine Life
- Brand New Equipment
- Two Dive Boats
- Grand Turk's newest and most luxurious Beachfront Accommodations Available

For our reasonably priced Dive Packages, contact

SCUBA WORLD (212) 496-6983
167 West 72nd Street • New York, New York 10023

PREMIERE: SEA DANCER
The Newest Live-Aboard in the Caribbean makes its Debut!

Now, for the first time, enjoy your own private cabin aboard this luxurious 110 Ft. Live-Aboard, and DIVE Grand Turk, Provo, and the "secret" sites of North, West, and South Caicos.

Your host is Peter Hughes Diving.

His systems of excellence that have made Flamingo Beach Hotel and the Tiara Beach two of the most successful dive resorts in the world is now available on this luxurious floating hotel.

ONE WEEK DIVE
PACKAGE PRICE: $995.00

FOR MORE INFORMATION CALL: 1-800-367-DIVI

CAICOS

Columbus House

COLUMBUS HOUSE (Ocean View Hotel)



"THEY SAY," He Can't Last With Lower Than Competitive Rates. We Are Still; The Best Bet and Best Rates!!

EVERYONE, Agencies, Tourist Groups, etc.
Keep Calling
809-946-2517

COLUMBUS HOUSE
P.O. Box 97 • Grand Turk •
Turks & Caicos Islands, BWI

Erebus & Provo Turtle Divers



Overlooking Turtle Cove Bay next to Provo Turtle Divers.
French restaurant and unique lounge atop a romantic hillside.
Recompression chamber available.

3 Night/4 Dive Pkg. 2/2 Tank Dives **$270.00 pp, dbl. occ.**
7 Night/10 Dive Pkg. 5/2 Tank Dives **$562.00 pp, dbl. occ.**

Diving Packages Include: room, breakfast, diving tank, wt. belt, BP, boat ride included, rental equipment also available.



Provo Turtle Divers, Ltd. *A full service sanctioned PADI training facility.*

For Bookings: EREBUS HOTEL • P.O. Box 8577
Ft. Lauderdale, FL 33310-8577
809-946-4240 • Telex (02968) 8436 Erebus TQ
PROVO TURTLE DIVERS • 809-946-4232

Hotel Kittina & Omega Diving

HOTEL KITTINA

Diving at your doorstep!

Luxurious rooms on the beach only steps away from your boat pick up. Restaurant, bar, pool, complete watersports.

SUPERIOR COURTYARD
3 Night/4 Dive Pkg. 2/2 Tank Dives **$207.00 pp, dbl. occ.**
7 Night/10 Dive Pkg. 5/2 Tank Dives, 1 Night Dive **$520.00 pp, dbl. occ.**

DELUXE BEACHFRONT ROOMS
3 Night/4 Dive Pkg. 2/2 Tank Dives **$259.00 pp, dbl. occ.**
7 Night/10 Dive Pkg. 5/2 Tank Dives, 1 Night Dive **$642.00 pp, dbl. occ.**

PACKAGE INCLUDES: room, transfers, gov't tax, gratuity, welcome drink, managers cocktail party, unlimited beach diving, tank, wt. belt, boat ride and guide.

Diving is provided by: **Omega Diving of Grand Turk**
For Bookings: THE TURKS & CAICOS RESERVATION CENTER
4197 Braganza Ave. • Coconut Grove, FL 33133 • 305-667-0966
HOTEL KITTINA • Grand Turk Island
Turks & Caicos, BWI • 809-946-2232

Island Princess & Provo Turtle Divers

Discover The Island Princess . . . Before The Rest Of The World Does!

ISLAND PRINCESS

Tropical 80 room hotel located **DIRECTLY ON THE BEACH.**
Excellent restaurant and bar . . . complete watersports activities.

DIVE PACKAGES PER PERSON

3 Night/4 Dive Pkg.	Single	Double	Triple	Quad
2/2 Tank Dives	**$408.00**	**$353.00**	**$332.00**	**$318.00**
7 Night/12 Dive Pkg.				
6/2 Tank Dives	**$899.00**	**$760.00**	**$615.00**	**$694.00**

DIVE PACKAGES INCLUDE: Airport transfers to/from resort • hotel—all meals • bed tax-gratuities • welcome drink & orientation • maid service • diving includes: tank, air BP, weight, guide.



Provo Turtle Divers, Ltd. *A full service sanctioned PADI training facility.*

For Reservations: ISLAND PRINCESS • Box 52-6002 • Miami, FL
Turks & Caicos Phone: 809-946-4260 • Telex: 8432 PRINCES T.Q.
PROVO TURTLE DIVER: 809-946-4232

Island Reef Hotel

ISLAND REEF HOTEL

- 21 Comfortable Rooms
- Efficiencies and 1 Bedrooms
- All rooms w/kitchen, and air conditioning
- Pool and Tennis
- Restaurant and Bar
- Car rental available

For Dive Package information call:
Mega Travel 817-778-1064
Island Reef Hotel,
TMB 10, Grand Turk,
Turk & Caicos, BWI, 809-946-2055

Salt Raker Inn & Blue Water Divers



DIVE THE SPECTACULAR GRAND TURK WALL
from your doorstep at the Salt Raker Inn.

5/nights/8 dives-sgl.—$432pp, dbl.—$402pp, trpl.—$372pp
7/nights/12 dives-sgl.—$624pp, dbl.—$582pp, trpl.—$540pp

The Salt Raker Inn is the perfect combination of luxury and casual island comfort, all set in a lush tropical garden directly on the beach. Blue Water Divers offers personalized service in small groups of 10 or less. We put the "Sport" back in diving!! Package includes: tanks, backpack, wt. belt, boat ride, guide service, and welcome cocktail. **Direct Bookings receive 20% discount!!!**



For Bookings: 809-946-2260 SALT RAKER INN
809-946-2432 BLUE WATER DIVERS
P.O. Box 124, Grand Turk, Turks & Caicos, BWI

Treasure Beach Villas & Provo Turtle Divers

Treasure Beach Villas *. . . More than just a room!*

Complete rental condos with full service kitchen, fully furnished one and two bedroom apartments. A complete holiday retreat with pool, tennis courts and miles of unspoiled white sand beach.

DIVING PACKAGES
3 Night/4 Dive Pkg. 2/2 Tank Dives **$340.00 pp, dbl. occ.**
7 Night/10 Dive Pkg. 5/2 Tank Dives **$670.00 pp, dbl. occ.**

DIVE PACKAGES INCLUDE: tank, wt. belt, BP, boat ride, rental equipment also available.



Provo Turtle Divers, Ltd. *A full service sanctioned PADI training facility.*

For Bookings: TREASURE BEACH VILLAS • P.O. Box 8409
Hialeah, FL 33012 • 809-946-4211 • Alleveia
PROVO TURTLE DIVERS • 809-946-4232

Bye-Coastal Tours



THE WORLD'S LEADING HOTEL REPRESENTATIVE FOR THE TURKS & CAICOS

- 11 Hotels on 3 Islands.
- Dive packages to suit all needs & groups of all sizes.
- Special discounts for medium & large groups.

One phone call will give you the fullest information and assistance to ensure the diving experience of a lifetime!

Complete information from: **Bye-Coastal Tours**
P.O. Box 3126, Westville
New Haven, Ct. 06515
203-371-1119

INTRODUCING

APRIL SEAS

(U.S. REGISTRY)

135FOOT LUXURY DIVING VESSEL

LARGE ENOUGH FOR PRIVACY
SMALL ENOUGH FOR INTIMACY

BAHAMAS

IF YOU CAN THINK WHAT A PERFECT LIVE ABOARD DIVING VESSEL SHOULD HAVE — THE **APRIL SEAS** HAS IT ALL.

(Private Bath with Shower in all Staterooms)

- PROFESSIONAL CHEF
- GOURMET FOOD
- 3 SUN DECKS
- "NEPTUNE'S" LOUNGE
- VIDEO LIBRARY
- LINENS, TOWELS
- AIR CONDITIONED THROUGHOUT
- UNLIMITED DIVING
- PROFESSIONAL DIVING STAFF
- MAXIMUM DIVING WITH MINIMUM EFFORT
- PHOTO LAB
- UNDERWATER PROPULSION UNITS
- WIND SURFERS
- TWO COMPRESSORS

NOW ACCEPTING RESERVATIONS FROM JAN. 1, 1987 ON FOR INDIVIDUALS AND GROUPS
DEPARTURE FROM FORT LAUDERDALE

1-800-922-8446 — U.S. Toll Free
1-305-935-4359 — Florida
Telex 264915 BARCO-UR
FAX 305-463-8182

P.O. Box 22947
Fort Lauderdale
Florida 33335
U.S.A.

Under the Direction of Lee Turcotte

TRUK LAGOON
8 days
$1999.00
Includes:

TRUK & PALAU
14 days
$2999.00
Includes:

Air, hotels, diving, transfers & Tax

Call or write **TRIP AND TOUR** *the Dive Expert*

1-800-843-8956 CA
1-800-527-5228 Canada

1-800-348-0842
U.S.

FLAMINGO BEACH CONFERENCE CENTER

Divi Hotels' Flamingo Beach Hotel & Casino on Bonaire has added a conference center and photo facility. The fully air-conditioned conference center accommodates 150 in a casual, yet elegant atmosphere and contains such amenities as a PA system, 16mm projector, slide projector, new video equipment and large screen. The center is adjacent to Divi's Club Flamingo and Peter Hughes Dive Bonaire II at the Divi Flamingo Beach Hotel and Casino.

For the diver and nondiver, Flamingo Beach Hotel and Casino has added Photo Bonaire. Centrally located within the hotel complex, Photo Bonaire offers 24 hour E-6 color processing, underwater video and photography lessons, equipment rental and much more.

Information can be obtained from recognized travel agents or Divi Hotels executive office at (607) 277-DIVI or toll free (800) 367-DIVI.

OCEAN QUEST

A new corporation, Ocean Quest International, based in Mandeville, Louisiana, has been formed by a group of business professionals who are scuba divers. Ocean Quest will offer 7-10 day dive/cruises from New Orleans to the Western Caribbean aboard a 414 foot vessel. The ship will accommodate 250 passengers, up to 160 of whom will be divers.

With all cruise amenities, including casino gambling, live entertainment, disco, gourmet meals, daily activities and shore excursions, divers and nondivers can enjoy a vacation together.

The diving will be conducted from eight 35 foot aluminum dive boats. Each boat will hold a maximum of 20 divers with two divemasters and a boat operator. The boats will be launched from the mother ship twice daily for two morning and two afternoon dives on each of the four diving days on the eight day/seven night itinerary to Cozumel and Belize.

The maiden voyage is slated for April 11. For further information on Ocean Quest, please contact Al Convenuto at (800) 338-DIVE; in Alaska, Hawaii and Louisiana call (504) 626-5922.

DIVEALOT MOVES

Divealot Scuba Center has a new location in West Virginia. The dive center recently opened at 209 E. Main St. in the town of Sophia. The display area has been increased to 1,000 square feet. Also, a 4,500 psi storage system has been installed as well as portable oxygen for safety. Out of state divers can contact the shop for tour information by calling, toll free, (800) 523-7222. West Virginia divers may call (304) 683-4595.

DIVE THE LEGEND: TRUK LAGOON

from $1500



ABOARD THE LUXURIOUS S/S 'THORFINN'

Experience the diving adventure of a lifetime in MICRONESIA.

Explore the fabled wrecks of Truk Lagoon, dive incredible walls of Oroluck Atoll & discover the unchanged beauty of the Truk western islands such as Namonuito & Puluwat.

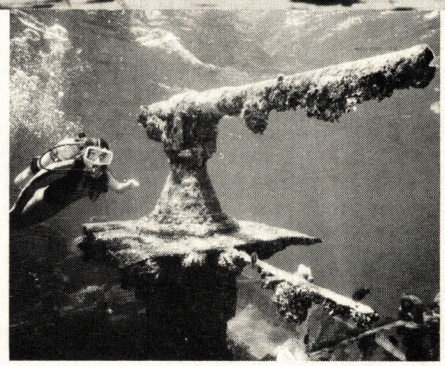
The S/S THORFINN is one of the world's largest and best equipped dive vessels. With 13 staterooms (all air-conditioned), a plush lounge with VCR, A/V facilities and our famous sundeck with hot tub, you will dive in comfort and security.

We offer unlimited diving from our 24' launches and optional windsurfing and fishing between dives.

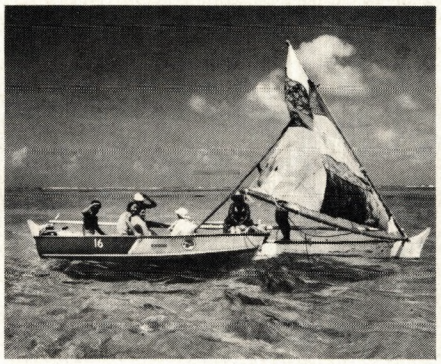
Our new 1987 schedule is tailored to suit your needs . . . dive Truk and adjacent atolls for either 6 days or 8 days . . . or experience a true Micronesia odyssey with a 12 day excursion from Truk to Pohnpei.

Incredible Micronesia . . . a wonder of spectacular reefs, brilliant soft corals, vast schools of pelagics and magnificent wartime wrecks.

Join us for the diving experience of a lifetime . . . write or call today!







1987 PACKAGES: S/S THORFINN

Package A:12 day itinerary/Truk Lagoon/Orolack Atoll/Ant Atoll & others. Terminate in beautiful Pohnpei.

Package B:8 day itinerary on the wrecks of Truk and exploring reefs of adjacent atolls.

Package C:6 days of Truk Lagoon.

Each dive day features continuous dive launch departures for an unlimited diving itinerary.

Yes! Send me information on package: A B C ALL

NAME

STREET

CITY

STATE

PHONE ZIP

DATE OF TRAVEL

SEAWARD HOLIDAYS
2315 Commissioner St.
Vancouver, B.C. V5L 1A4
or: 1604 Ruth Place
Honolulu, HI 96816
or contact your travel agent

CALL TOLL FREE: 1-800-663-8746 OR 1-800-222-4552

or your local dive travel agent



photos/Richard Triebe

MILWAUKEE CAR FERRY

Controversy Still Rages 57 Years Later

BY RICHARD TRIEBE

What made Captain Robert "Heavy Weather" McKay venture out into wild, storm tossed Lake Michigan on October 22, 1929? All the other boats stayed in port; the gale that raged broke local records for continuity and velocity of wind; and scores of piers and docks at South Haven, St. Joseph and Benton Harbor, Michigan were swept away. The package freighter *Delos W. Cooke* left Chicago under storm warnings and returned 27 hours later, badly battered. Interlake Steamship's 600 foot steamer, *Robert Hobson*, turned back to South Chicago, almost sinking in the process. (A survey showed 25,500 rivets had either popped or were sheared off and several plates had to be replaced because the ship was working so hard.) So, why did Captain McKay take the *Milwaukee* out? And, what happened to the sturdy vessel and the crew of 47? How could such a rugged, seaworthy ship have foundered? Seeing the *Milwaukee* at her dock or underway you couldn't help being impressed. Her sheer size and bulk dwarfed everything around her. After such a humbling experience you could never imagine her succumbing to the elements and sinking in any type of storm—but she did. What really happened on that wild, storm tossed night? Scuba divers answered many of these questions when they discovered her recently, 10 miles northeast of Milwaukee, Wisconsin.

In 1922, Captain Bob McKay became master of the staunch car ferry, SS *Milwaukee*. In many respects he paralleled the boat himself—sturdy, dependable, masterful, almost lordly in his handling of the sea with her many moods. Those elements: the ship, the man, even the sea seemed to be one and the same.

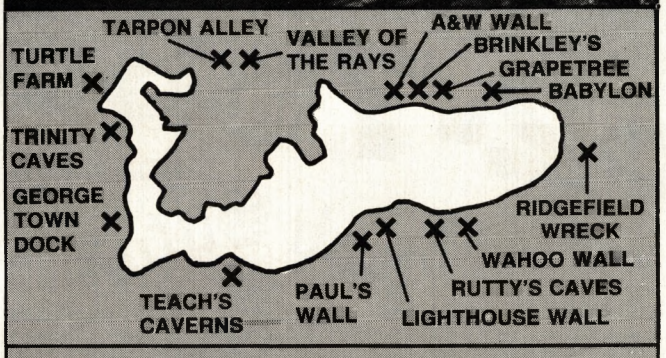
"He was rough, tough and gruff," said a former shipmate. And, although all the mates on the *Milwaukee* had their master's papers, the captain was not the kind of man to welcome advice or counsel. Was his decision to sail on that fateful day strictly his own idea or, as rumored later, was he ordered to by a tyrannical superior with a schedule to keep? Divers will



Wall To Wall Diving Adventure







- **Tarpon Alley**
- **Brinkley's**
- **Grapetree**
- **Babylon**
- **A & W Wall**
- **Wahoo Wall**
- **Rutty's Caves**
- **Lighthouse**
- **Teach's Cave**
- **Trinity Caves**

Grand Cayman is world renowned for its fabulous vertical coral walls. Few islands are blessed with so many, so magnificent, so protected.

CAYMAN AGGRESSORS make it possible for you to dive the most remote and very finest of these fantastic wall sites. Here is a random sample of the walls you might see in a 1-week trip aboard the AGGRESSORS:

The cruise itinerary is subject to change anytime, depending on the weather conditions. However, the AGGRESSORS have 100 dive sites to choose from.

For more information, brochures, and reservations call:

1-800-348-2628
(504-385-2092)
Aggressor Fleet, Ltd.
P.O. Drawer K
Morgan City, LA 70381
or
1-800-348-9778
(415-434-3400)
See & Sea Travel Service
50 Francisco St., Suite 205
San Francisco, CA 94133

MILWAUKEE CAR FERRY

probably never find the answer to that question. In any event, she did sail and the ship, along with every man, was lost.

At noon on October 22, 1929 on a return trip from Grand Haven, she docked at Milwaukee harbor with 25 railroad cars. After unloading them, she began loading 27 eastbound freight cars for the return trip. At exactly 2:30 pm after the cars were secured by the use of restraining jacks, clamps and chains, the crew was surprised to see the engine room telegraph signal stand by. Surely Captain McKay wasn't mad enough to test the lake in her present ill-tempered mood. Surprised? Yes. But no one questioned him then or even when he ordered the hawsers cast off, rang for half speed ahead and maneuvered his ship away from the dock. Men in the railroad's trackside office and others working nearby couldn't believe their ears when they heard the ship's departure whistle, then saw the big, greenish bulk of the *Milwaukee* on a course that would take her from the safety of the harbor into the tempestuous northern winds.

The last anyone saw of the *Milwaukee* was when the captain of the US Lightship 95 logged her as passing to the north, pitching and rolling heavily, about three miles due east of the harbor entrance. He noted he only had her in view about 10 minutes when she disappeared into the mist and rain. Forty-three years later she was discovered by divers John Steele and Kent Bellrichard in April 1972.

The *Milwaukee* car ferry was built in 1903 for the Manistique, Marquette & Northern Railroad by the American Ship Building Company in Cleveland, Ohio. She had a length of 338 feet and a beam of 56 feet, her gross registered tonnage was 2,933. She was powered by two triple expansion engines. She was built as sturdy as possible because she had to handle heavy loads of up to 30 cars and navigate the treacherous lake year-round. She wasn't—and this was very important later—equipped with wireless. In the fall of 1908 she was sold to the Grand Trunk, Milwaukee Car Ferry Line and put on the run between Grand Haven and Milwaukee to run alternately with the car ferry SS *Grand Haven*.

There was serious concern expressed for her safety when she was 36 hours late and the Grand Trunk car ferry SS *Grand Rapids*, traveling the same route, docked at Grand Haven without sighting her.

On the morning of October 24, 1929, the steamer *Colonel* spotted some wreckage off Racine, Wisconsin. It contained mattresses, furniture and quantities of wood that had apparently been part of a deckhouse or cabin but could not be positively linked to the *Milwaukee*.

By the next morning all doubts were erased when two crew members were found off Kenosha. Both were wearing life preservers marked SS *Milwaukee*. The following day provided more grim evidence. A lifeboat was found with four crew members—all dead from exposure.

On October 27, a group from the South Haven Coast Guard station found a message case belonging to the ill-fated steamer. Inside, on the official printed stationary of the Grand Trunk car ferries, was a note. It said:

"SS *Milwaukee*, October 22, 1929, 8:30 pm. This ship is making water fast. We have turned around and are heading for Milwaukee. Pumps are working but the sea gate is bent in and can't keep the water out. Flicker is flooded. Seas are tremendous. Things look bad. Crew roll is about the same as last payday.

A.R. Sadon, Purser

The flicker, mentioned by the purser, is seaman's jargon for the sleeping and living compartment. On the *Milwaukee*, it was under the car deck just aft the boiler and engine rooms.

What had caused the *Milwaukee* to sink? How had her sea gate become bent in? Could the water in the flicker be attributed to allowing the seas to wash over her deck unhindered? Perhaps the loaded railroad cars worked free from their

NEW YORK - CHICAGO - DETROIT
NON-STOP JET SERVICE TO
GRAND CAYMAN

AS LOW AS $843.* 8 days/7 nights 6 days of diving

Cayman Airways

1-800-262-7686

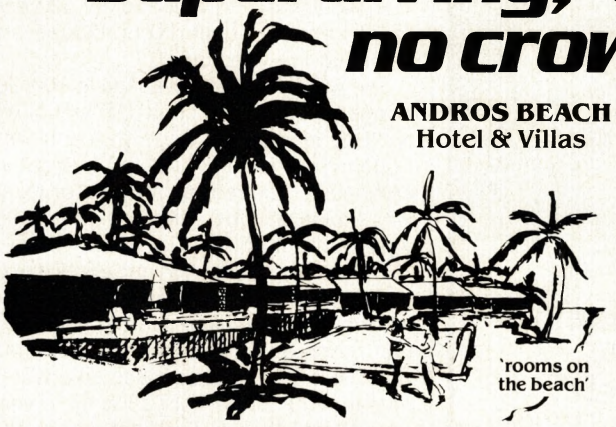
RON KIPP'S
Bob Soto's
DIVING LTD.
P.O. Box 1801, Grand Cayman, B.W.I.

Dive Cayman this winter at bargain rates and unbelievable convenience. Friday departure from **Detroit,** Saturday and Sunday from **New York** and **Chicago.** Only 3½ hours non-stop! Round trip, hotel, dive package and transfers as low as $843.*

** Per person, double occupancy, during January, April (Easter excluded) and other select dates. Program dates Dec. 19, 1986 - April 19, 1987.*

BAHAMAS

'In Andros, you'll get Superdiving,-and no crowds'



ANDROS BEACH
Hotel & Villas

3 DAYS
2 NIGHTS
as low as
$395
(p.p. dbl. occ.)

8 DAYS
7 NIGHTS
as low as
$865
(p.p. dbl. occ.)

140 miles of unexplored barrier reef – and not another dive boat in sight. Coral gardens, drop-offs, huge ship-wrecks, exotic blue-holes. 15 deluxe air-conditioned rooms, full-service restaurant and bar overlooking a fresh-water pool. Two custom-dive boats. The perfect alternative to the 'follow the mob' syndrome.

3 DIVES PER DAY
(2 on arr. & dep. days)
INCLUDES: R/T Airfare • Ground Transfers • A/C Room • 3 Meals Daily • Room Taxes and Tips.

Call or write for details!

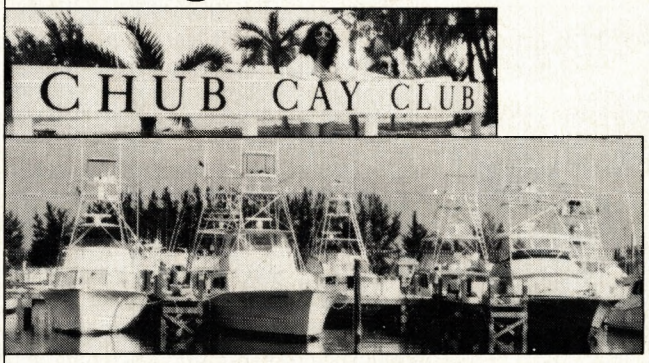
TOLL FREE
800-327-8150
(305) 763-2188
FLORIDA

NEAL WATSON'S UNDERSEA ADVENTURES

ANDROS UNDERSEA ADVENTURES
P. O. Box 21766
Ft. Lauderdale
FL 33335

BAHAMAS

'At Chub Cay – spend your days in the Tongue of the Ocean and your nights at the Club'



3 DAYS
2 NIGHTS
as low as
$399
(p.p. dbl. occ.)

8 DAYS
7 NIGHTS
as low as
$975
(p.p. dbl. occ.)

Chub Cay is one of the finest 'total' diving and fishing resorts in the world. Exotic coral falls into a deep-water trench forming miles of wall diving – a place where shallow and deep-water species mix for unsur-passed diving thrills. Come stay with us on our own special island. Self-contained, friendly, unique.
E-6 Photo Lab on Premises.

3 DIVES PER DAY
(2 on arr. & dep. days)
INCLUDES: R/T Airfare • Ground Transfers • A/C Room • Breakfast and Dinner Daily • Room Taxes and Tips.

Call or write for details.

TOLL FREE
800-327-8150
(305) 763-2188
FLORIDA

NEAL WATSON'S UNDERSEA ADVENTURES

CHUB CAY UNDERSEA ADVENTURES
P. O. Box 21766
Ft. Lauderdale
FL 33335

BAHAMAS

'Dive the Bimini Wall, -and other legends'



Neal Watson, a modern dive legend and owner of Undersea Adventures.

Dive Moray Alley, the wreck of the 'Sapona,' Victory Reef, The Atlantis Road, and drift along the 'edge of the world,' suspended in the crystal-blue water of the Gulfstream. At night, follow Hemingway's footsteps to the local pub.



40' CUSTOM-DIVE BOAT 'SHARKBUSTER'

BIMINI STANDARD
3 days
2 nights
As low as **$325**
per person, double (includes 7 dives)

BIMINI DELUXE
3 days
2 nights
As low as **$399**
per person, double (includes 7 dives)

STANDARD 8 Days/7 Nights
$725 per person, double
(includes 22 dives)

DELUXE 8 Days/7 Nights
$975 per person, double
(includes 22 dives)

INCLUDES: Round-trip Airfare • Transfers to and from Airport • Air-conditioned accommodations • Deluxe: Gourmet Breakfast and Dinner Daily (MAP) • Free Tennis • Fresh-Water Pool • Standard: 3 Meals Daily • All Gratuities.

For more information or reservations: Write or Call Today!

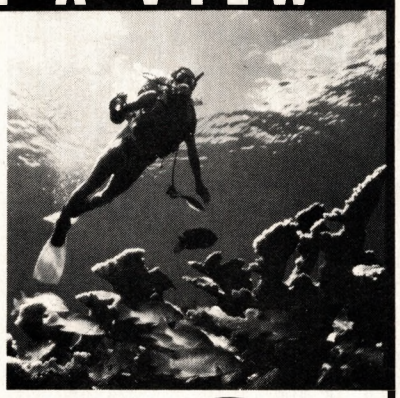
TOLL FREE **800-327-8150**

NEAL WATSON'S UNDERSEA ADVENTURES

BIMINI UNDERSEA ADVENTURES
P. O. Box 21766
Ft. Lauderdale, FL 33335
Telephone (305) 763-2188

ROOM WITH A VIEW

COZUMEL $172



There's nothing ordinary about either the room or the view. Relax in 5-star luxury at the beachfront Sol Caribe Cozumel hotel. Then dive into this Fantasia Diver's package and explore an undersea world of enchantment where visibility often exceeds 200 feet.

Our $172* package ripples with amenities, including deluxe accommodations for 3 nights/4 days, welcome cocktail, daily breakfast buffet and hotel taxes. And the dive features include 2 dives per day (2 days) to a different reef each dive (i.e., Palancar, Columbia, Paradise, Santa Rosa), lunch and soft drinks on dives, unlimited air and a Fantasia Diver's t-shirt.



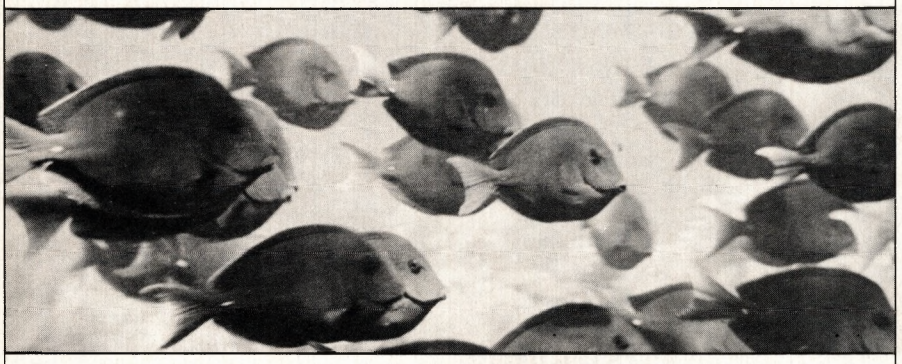
Strap on an extra tank, and plunge into our $383* package for 7 nights/8 days at the Sol Caribe Cozumel with 2 dives per day for 4 days and all the sparkling extras.

For reservations, call **1-800-223-2332** or **1-800-336-DIVE**. In New York, call **212-683-0060**. In Texas, **713-558-9524**. Ask for the Fantasia Divers Package.

Sol Caribe Cozumel; Playa Paraiso, P.O. Box 259; Cozumel, Quintana Roo 77600, Mexico; Phone: 011-52-987-20700.

Operated by Fiesta Americana Hotels. *Per person, double occupancy airfare not included, valid thru 12/15/86. Additional dives available.

Nice and easy. Nice and close.



Small . . . private . . . one-resort island.

Close, safe and currentless gin-clear water of the Upper Bahamas Barrier Reef. An overwhelming profusion of friendly fish and colorful corals at numerous sites and various depths.

Undiscovered. Unspoiled.

Home of Aqualife, the world's ONLY marine aquarium fish hatchery and research center.

Superb accommodations, dining, deep water marina, tennis and secluded beaches. Just 45 minutes from Ft. Lauderdale.

Close. Safe. No problems. No hassles.

Call for special dive packages.

WALKER'S CAY HOTEL AND MARINA
ABACO, BAHAMAS

(305) 522-1469, U.S. Toll Free (800) 327-3714, Fla. Toll Free (800) 432-2092

MILWAUKEE CAR FERRY

restraints and slid into the gate, bending it, possibly ripping a hole in her hull and piling the cars on one side of the ship. Man would have to wait another 43 years for the answer—until divers located and surveyed the wreckage.

The wreck of the *Milwaukee* is 10 miles northeast of Milwaukee in 125 feet of water. She sits upright on a mud and sand bottom, bow facing north, with her cabins crushed in. The rear pilothouse, or texas, was blown off when she sank and it lies east in about 150 feet of water.

Taking a charter with an experienced captain is recommended because although the *Milwaukee* is a big wreck she can be pretty hard to find. A full wetsuit or drysuit is a must because lake waters at that depth range from 35 to 45°F year-round. Also take a dive light, not just for the nooks and crannies, but because the whole wreck gets rather dark that deep. If you are into photography a good strobe or two is a must. Visibility usually averages eight to ten feet but it can jump to 25 or 30 feet in late summer if the conditions are right.

If you start your dive at the bow, you'll notice a large crack in the hull as you swim about 25 feet back. The crack starts at the bottom as a small V but owing to the incredible size of the wreck (40 feet from the bottom) it is cavernous at deck level. If you're diving in bad visibility it is very easy to be swimming along and go inside the wreck while thinking you are safely outside. When you want to end your dive and ascend you'll find you can't because of the steel deck above you. Let me add a word of caution here: This dive should be attempted by experienced wreck divers only. The depth, currents, limited visibility and twisted wreckage definitely make it an advanced dive.

When you safely navigate to the other side of the crack (about 20 feet) you will find the cabins gone. Not to worry, they're still there, only crunched down. Many souvenirs can be had by carefully picking your way through the wreckage as the *Milwaukee* is not dived that often.

If you drop down to the loading deck you will see four sets of railroad tracks and cars scattered all over. Some are still upright but many are off their tracks and others lie on their sides. Some of these cars contain bathroom fixtures, others contain automobiles. You'll find lots of chain and jacks used for clamping down the cars. Farther forward and down you come to the boiler and engine rooms. This latter is as large as a gymnasium with a tangle of pipes everywhere. Divers searching here could be rewarded but again, be careful, especially in bad visibility. A salvage diver cut a hole in the hull for easy access to this area but it may

(Continued on Page 120)

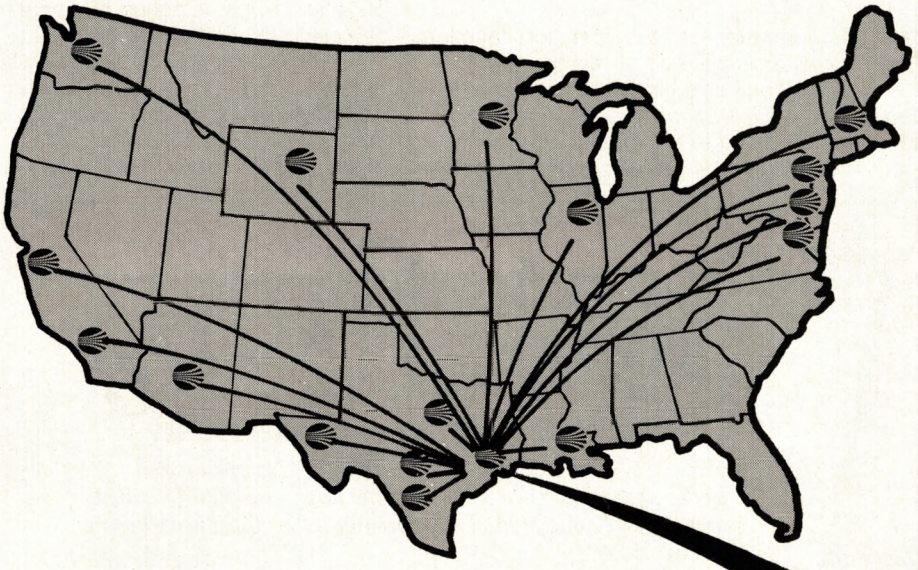
CONTINENTAL AIRLINES

PROUDLY ANNOUNCES THE BEST OF COZUMEL

- The Best Diving
- The Best Hotels
- The Best Airfares

ALL AT THE BEST PRICES!

JUST SELECT YOUR CLOSEST AIRPORT AND "ADD-ON" YOUR COST TO HOUSTON TO THE PACKAGE PRICE:



Sample Add-On Airfares (To IAH—Houston)	
• Austin	$63
• Boston	$203
• Chicago	$128
• Dallas/Ft. Worth	$13
• Denver	$118
• Los Angeles	$158
• Minneapolis/St. Paul	$153
• New Orleans	$73
• New York	$153
• New York/Newark	$153
• Phoenix	$153
• San Antonio	$43
• San Francisco	$173
• Seattle	$193
• Washington, D.C.	$173

(Prices Subject to Change)



THEN CALL 1-800-446-2166

Price Includes Roundtrip Air From Houston, 8 Day/7 Night Hotel Accommodations, 6 Two-Tank Dives with Lunch, Unlimited Beach Diving, Mexican Hotel Tax, Incl. For Only:

$649.00

All Arrangements are made with just ONE CALL!

1-800-446-2166

(Texas Residents Call Collect for Reservations Only)

TWO WORLDS TRAVEL, 1307 First St., Humble, TX 77338



photos/Bonnie J. Cardone

No More Ringing In The Ears

BY JIM WALKER

Ringing in the ears has never been pleasant. Boxers who've taken too many punches to the head often have it. Veterans of jackhammer operation often have it. Heavy metal rock stars often have it. Even some divers have it—although whether this is from "too deep too long" or is a result of hearing too many outrageous dive stories, is open to question. Whatever, whether of long or short term, ringing in the ears is unpleasant.

Until recently, users of metal detectors have had to put up with this problem while searching for valuables. It is called threshold tone and you hear it through the headphones of your detector steadily during your search. "Hits" (when your unit detects an object) are signaled by an increase in the volume of this tone. Generally, you try to strike a balance between the threshold tone volume and the sensitivity of your search; the more you tune out the tone, the less sensitive your detector will be. This is no longer a problem. The 1280-X Aquanaut from Fisher M-Scope has no threshold tone. But, that's only one of its innovative features.

The Aquanaut is designed for use on land, in shallow water and underwater. Submersible to 250 feet, it incorporates an eight inch diameter searchcoil; adjustable fiberglass shaft (33 to 49 inches); injection molded, factory sealed control box; and waterproof headset. All exterior components are corrosion resistant. Rugged, compact and sleek looking, the complete system with headset weighs only 5.1 pounds topside and has slight positive buoyancy underwater. That weight is distributed for the most comfortable balance while in use, but the control console can be detached and worn on a belt clip topside if desired.

Powered by eight AA cells (alkaline or carbon-zinc), the Aquanaut features advanced quartz crystal controlled electronics. (An optional charger and nickel cadmium cells are available.) The instru-





The Aquanaut metal detector is completely amphibious—even the headphones. For use on land the shaft can be extended.

ment console has three control knobs—sensitivity, discrimination and power/volume—as well as an LED. Hits are indicated by the LED as well as a tone, audible in the headphones.

The Aquanaut offers two extra defenses against the intrusion of water. First, the battery chamber is completely separate from the electronics. If you forget to tighten its O-ring sealed door, and it floods, merely wash the chamber thoroughly with fresh water and dry it. Then add new batteries. Second, the LED is surrounded by desiccant grains, which will turn from blue to red if moisture enters the electronics case. This may allow you to do something about the water before it permanently damages the unit.

The volume control is set for personal preference. Naturally, the volume will need to be turned up louder for underwater use, especially when the operator is wearing a hood.

The sensitivity knob is adjusted to tune out false signals caused by highly mineralized soil or saltwater. It doubles as a battery test: With the volume set to about 3, turn the sensitivity knob counterclockwise until it clicks off. The LED will glow steadily and a tone will be heard if the batteries are good.

One advantage of the Aquanaut is once you set the sensitivity for the general environmental conditions encountered, it automatically adjusts for small variances. You won't have to continually reset the knob.

The discrimination knob adjusts the detector to tune out trash items. For example, iron might be rejected at 3, bottlecaps at 4, pulltabs at 6 and aluminum screwcaps at 7. Depth penetration is somewhat dependent on the discrimination setting. With it set on minimum, the Aquanaut will detect hits at maximum depth, but all metal types will register.

The Aquanaut requires a slight motion of the searchcoil to detect hits. While the target response is fast, the coil should be moved slowly and in a regular pattern to examine an area thoroughly. Additionally, the coil should be kept parallel to the ground for consistent readings.

Proper care of the Aquanaut includes a thorough rinsing with fresh water after use in the ocean, then air drying before storage. Make sure to rinse the screw head at the top of the hand grip where the control box slides on.

The 1280-X Aquanaut retails for $649.95. It has a five year limited warranty and comes with a rugged, foam-lined, suitcase-style carrying case.

Fisher Research Laboratory has a 12 page, full color catalogue. Twelve metal detector models are discussed in detail and a chart compares 68 features ranging from battery life to operating modes. For dealer information or a catalogue, contact Fisher Research Laboratory, 1005 I St., Department SD, Los Banos, CA 93635-4398; (209) 826-3292.



COZUMEL'S BEST ON THE BEACH

LA CEIBA HOTEL

•Five Star Caribbean Hotel • Best beach diving on the island • Pool, spa, sauna, massage room, tennis court • Telephones & television in each room • Two bars, two restaurants • English spoken throughout hotel •Divers board boats directly at La Ceiba Pier

CARLOS SIERRA'S DIVE COZUMEL

•Safe, competent dive operation • Four dive boats • Five PADI Divemasters • American PADI Instructor • 10 Years showing divers the best Cozumel has to offer!

"... it never rains on me in Cozumel, Mexico!"

$524.00 **8 days & 7 nights**
per person, dbl. occupancy

Package includes:
- •6 two tank boat dives with lunch
- •unlimited shore diving at the hotel beach
- •15% Mexican Hotel tax included
- •free use of tennis court (day or night)
- •weights & belts with boat dives
- •guide on boat dives
- •for an additional charge, 7 breakfasts and dinners will be included.

(Air transportation can be arranged. Commissions to travel agents & dive industry are fully protected.)

Two Worlds Travel

1307 First St., Humble, TX 77338 **1-800-446-2166**

Texas residents call (713) 446-2166 collect for reservations only.



TOP DIVE

50 SPECTACULAR DIVE SITES
(AND WE'VE JUST BEGUN TO EXPLORE)



• 42' diesel dive boat • 36' diesel dive boat • 25' dive boat • 50 CFM compressor • 20 CFM compressor • 30,000 cf. ft air storage • Fresh water swimming pool • Photo center

WALLS PINNACLES RIDGES CAVES VOLCANOES BIG FISH

Imagine an island...
of pineclad mountains and lazy white sand beaches fringed with palms; a lost island, where orchids grow wild and freshwater streams from natural mountain springs; a peaceful island surrounded by an unexplored barrier reef, cooled by a soft breeze and washed by a sapphire sea.

"Mother nature at her best"
This is Guanaja, where the Inn of the Sun is home to divers, sun worshippers and nature lovers alike. The Inn of the Sun is a Spanish Villa set at the base of the foothills of the mountains on 62 acres of oceanfront tropical greenery. The resort features dining room, bar, dive shop, fresh water swimming pool, tennis court and even an exercise room. All of our rooms have ocean front views.

You'll agree it's **Top Dive.**
Be our guest. You'll enjoy our facility and the fine food prepared by our proud chef, and we'll give you personal service you won't forget. Come dive with us. Whether you like "aquarium" dives or swimming through caves and grottoes of colorful coral or the adventure of a big fish encounter. **We can please you.**

UNLIMITED DIVE PACKAGE
$599.00
7 NIGHTS 8 DAYS
3 MEALS DAILY

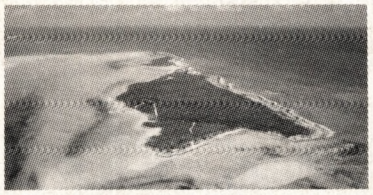
FOR RESERVATIONS OR INFORMATION:
POSADA DEL SOL
P.O. BOX 537, BOCA RATON, FL 33429
800/642-DIVE OR 305/994-6232

How to buy your Caribbean island home

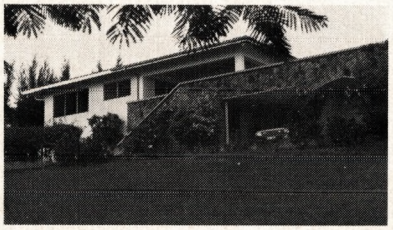
A villa, condo, land or business of your own can put you in paradise and be a sound investment, too. Here's how we can help:



For sale in Barbados: 3-br. converted sugar mill.



Private islands with homes from $65,000.



Montserrat: 3-br. villa, pool, breathtaking view: $110,000.

If you've ever thought of owning a tropical island home for investment, retirement or vacation use, **Island Properties Report** is for you.

Each issue focuses on a single island in the Caribbean, the Bahamas and beyond — reports on politics, the economy, tax laws, schools, hospitals, living costs — what to look for *and look out for* — what it's really like to live there.

PLUS PAGES OF LISTINGS: villas, condos, private islands, land, businesses for sale. PLUS region-wide **Quarterly Reports** on little-known investment opportunities, island living, island books at discount, how American ex-pats are "living their dreams." PLUS **Travel Savings** on air, hotels, etc. Satisfaction guaranteed or full refund if you tell us within 90 days.

FREE when you subscribe now: Hammond Caribbean Wall Map + 2 Special Reports on Renting Your Property (including IRS rules) and Making a Living in the Islands.

☐ Enroll me for one year (12 issues) for only $39.00. Include my FREE bonuses.
☐ Payment enclosed. ☐ Charge my ( ) Diner's ( ) MC ( ) Visa (include card no. and expiration date)

Name _____

Address _____

_____ Zip _____

☐ Send further information. Enclosed is $1.00.

Island Properties Report

Box 58SD2 Rte. 4, Woodstock, VT 05091 • 802/457-3734
Credit Card Phone Orders: (802) 457-3734

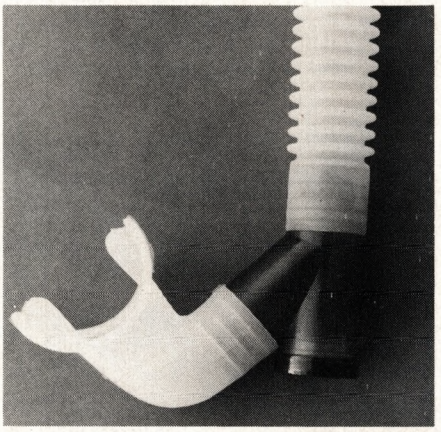
MARES' NEW MASK AND SNORKEL

Perfect Companions For Easy Diving

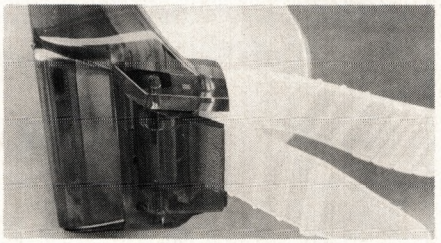
TEXT AND PHOTOGRAPHY BY BONNIE J. CARDONE

The very first piece of dive gear was probably a pair of goggles, very likely crudely fashioned of wood. The goggles evolved into masks over time, and the masks got larger and larger. When I took up diving almost 14 years ago, the mask I purchased had a big oval faceplate and black neoprene skirt. It had several disadvantages. Chief among these was its large volume—I never was able to clear it completely. In fact, I would surface to clear it only when the water inside started splashing in my eyes! As the mask aged, its neoprene skirt stiffened and began to deteriorate. It took me awhile to realize the reason my forehead hurt after I had been diving was a combination of a rigid mask skirt and 10 foot jumps off a boat.

None of the problems I experienced with my first mask should be a problem for those certified in 1987. Masks today



The lower part of the Mares Flex Stream snorkel is corrugated for flexibility.



The strap locks snap open and closed. A ridge on the lock secures the strap.



The Chroma mask has a polycarbonate frame that comes in blue or red. It offers a wide angle of view but has a low volume. The Flex Stream snorkel is self draining.

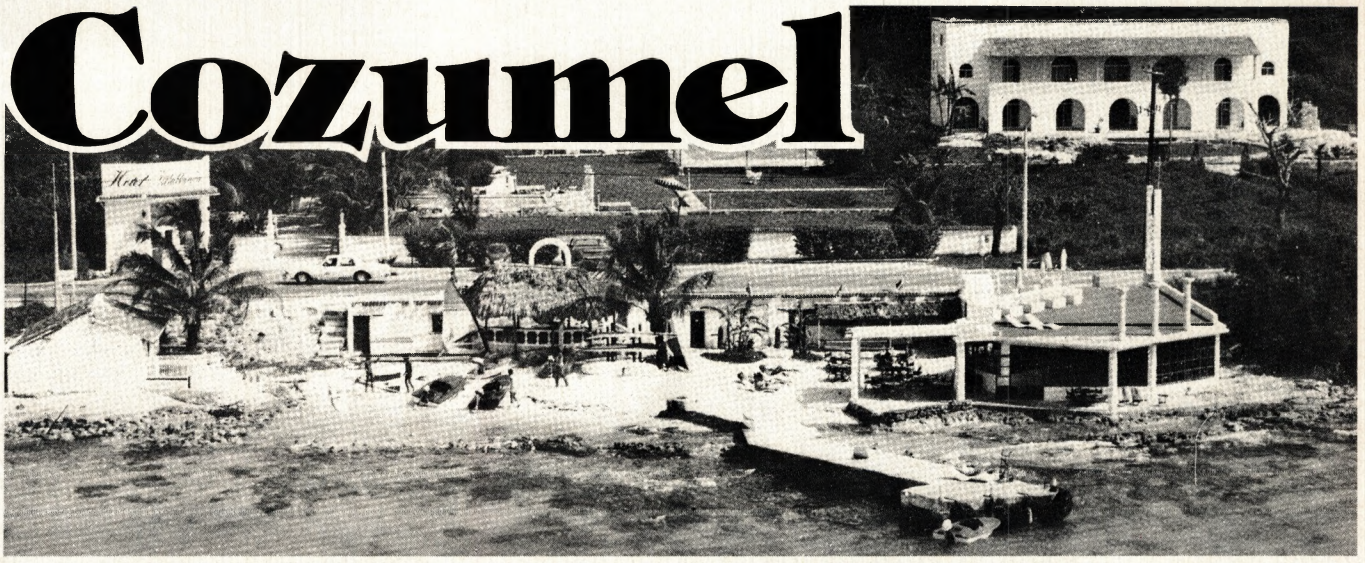
tend to have low volume. The Mares Chroma, for example offers a wide angle of view similar to that of my old oval mask but, because of the way the skirt is constructed, the lens fits close to the face. This results in a low volume mask that is easy to clear, has little drag and provides good downward vision. The soft, translucent skirt is formulated from pure liquid silicone. It has a double edged seal to prevent leakage. Silicone doesn't stiffen with age, as does neoprene, and will never give you ring around the face. (This latter is the reason I finally got rid of my oval mask.) The Chroma skirt has a nose pocket for easy equalizing.

Although adjusting the strap of my first mask was a major production, this is not the case today. The Mares Chroma has unusual strap locks with no internal moving parts; they snap open and closed. A ridge on the lock secures it against ridges on the strap so the strap can't slip. Loosening the strap takes two hands, but tightening it is an easy, one-handed affair: Just pull on the strap end. The strap is wider in the back and has oblong holes to help it stay in place when being worn.

The Mares Chroma has a polycarbonate frame, available in blue, red or dark green with translucent silicone skirt and in red or blue with a graphite silicone skirt. Both models retail for $48.

The perfect companion for the Chroma mask is the Mares Flex Stream snorkel. This has many features that are almost standard with today's snorkels including: a contoured barrel that fits close to the head to eliminate drag; a silicone snorkel keeper; a purge valve to allow easy clearing; and a mouthpiece that swivels for custom positioning. The lower part of the barrel is corrugated, which makes it flexible. It stays away from the face when not in use. In the past, corrugation tended to reduce air flow and trap water. The Flex Stream, however, is only corrugated on the outside, inside it is smooth. The Flex Stream snorkel comes in blue/clear or red/graphite. It sells for $22.

More information on the Chroma mask, Flex Stream snorkel or other SeaQuest/Mares products is available by contacting the company at P.O. Box 1397, Carlsbad, CA 92008.



Villablanca, true Mexican Style Hotel, with super dive package.

Air-conditioned rooms, ceiling fans, sunken tiled bathtub, night club, and sandwich bar with classical/popular music and videos, swimming pool, tennis, and snorkeling.

Poseidon Offers Economy at its Best!

Winter Special Includes: 7 nights, 5 days diving • Beach diving • Continental breakfast • Taxes • **$328** PP dbl. occ.

Summer Special Includes: 7 nights, 5 days diving • Beach diving • Continental breakfast • Taxes • **$275** PP dbl. occ.

Poseidon Venture Tours, 505 N. Belt, Suite 675, Houston, TX 77060 (713) 820-DIVE
359 San Miguel Drive, Newport Beach, CA 92660 • (714) 644-5344 • (800) 854-9334

BONAIRE

PETER HUGHES
Dive Bonaire
AT THE DIVI FLAMINGO
BEACH HOTEL & CASINO



EXOTIC FROGFISH UNDER TOWN PIER

Peter Hughes has developed and refined the most successful dive travel operations in the world. His expertise with boats, dive support and innovative programs is unsurpassed.

Experience Peter Hughes' prima dive operation while exploring Bonaire's beautiful underwater world. The warm transparent seas surround unspoiled and spectacularly colored coral reefs and marine life.

Dive Bonaire's dive boats always leave on schedule to more than 40 breathtaking dive sites that lie within minutes of the casual Divi Flamingo Beach Hotel & Casino, the Caribbean's most complete dive resort. Photo Bonaire lets you capture your scuba adventures forever by providing a complete, professionally staffed on-site photo facility with 24-hour E-6 processing, instruction, plus still and video equipment rental.

Dive Bonaire under the brilliant rays of the Caribbean sun, or during the glowing moonlit hours of the soothing Flamingo nights...both are breathtaking.

We're pleased to offer for a second season, the already popular "Divi-Inclusive" package—

from **$589.** 5 days/4 nights, dbl. occ. Dec. 20, 1986 thru Apr. 3, 1987. From $949 for 8 day/7 night package. Flamingo's Divi-Inclusive price includes unlimited diving, meals, accommodations, bar beverages, roundtrip airport/hotel transfers and free developing of every 5th roll of film.

DISCOVER OUR CARIBBEAN
CALL 800-367-3484

ALM ANTILLEAN AIRLINES
AIR-INCLUSIVE PACKAGES AVAILABLE VIA ALM ANTILLEAN AIRLINES FROM NEW YORK AND MIAMI.

Full cooperation with travel agents and dive professionals.

DIVI HOTELS MARKETING INC., 520 W. STATE ST., ITHACA, NY 14850, 607-277-3484.

Peter Hughes Diving

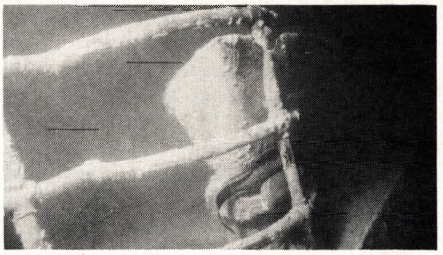
MILWAUKEE CAR FERRY

(Continued from Page 114)

take you awhile to find it in low visibility.

If you swim toward the stern again you will find the infamous sea gate. It is indeed bent—but from the inside. It is also torn out by the roots and the starboard side is broken. If you swim outside the wreck you will see three or four cars on the bottom. One is even under the car ferry—there are wheels sticking out from underneath. The purser wrote that the sea gate was bent in, not out. Could he have meant the gate was bent by the sea? If it was done by the sea it would have been bent in, like he said. How did it get bent out? Maybe the cars loosened and pushed it out. Maybe she sank stern first and the cars rolled back, tearing the gate out and sinking to the bottom with the ship finally coming to rest on top of one of the cars.

I asked John Steele—the man who originally found the wreck—and he made



several interesting observations. In his opinion not all of the cars were chained down. Maybe the crew intended to complete the job during their passage but the sea was rougher than imagined and they were unable to do this. Some of the cars could have loosened and become missiles that battered the gate. "Since the *Milwaukee* was a coal burner," Steele said, "they used to fill the bunkers by running a coal car up the tracks and dumping her into an open grate. With the sea gate bent, offering very little resistance to the tremendous waves, it is very likely the water washed over the deck and down to the coal bunkers, flooding them. The flicker, or crew quarters, is also below decks and not far away. The purser had noted they were flooded too." Steele went on to say he believes this to be true since the partitions were made of wood and would have been swept away by the rushing water easily when she sank unless they were flooded like he said.

Today the SS *Milwaukee* rests in her watery grave but the controversy over her loss still rages today. Thanks to men like John Steele it centers around what made Captain Robert "Heavy Weather" McKay venture out into wild, storm tossed Lake Michigan on October 22, 1929 when all the other boats stayed in port.

SURFSIDE STATIA

Surfside Statia, a newly established, fully equipped diving center, offers underwater adventurers all the history that has earned St. Eustatius the title "The Historical Gem of the Caribbean." Surfside's professional instructors guide divers of all levels to the historic shipwrecks and ruins of 18th century seaports on the ocean bottom. Rare fish and beautiful coral formations also await them.

Surfside Statia offers two tank morning and one tank afternoon dives daily. Night dives are also available upon request. The facility has more than 150 aluminum tanks, four compressors and rental snorkel gear.



photo/Gail Knopfler

Scuba adventurer Michael Fagin (center) and Brad Edelman, offensive guard for the New Orleans Saints football team (left), join Mike Guderian of Surfside Statia Watersports and Diving Center for exploration among the 18th century wrecks and ruins off the island of St. Eustatius.

Hotel packages at either The Old Gin House, Golden Era Hotel of La Maison Sur La Plage are available for divers and nondivers. All packages include seven night's accommodation, room tax and gratuities. Diver packages also include six, two tank morning dives with a transferable night dive option; use of tanks, backpacks and weightbelts.

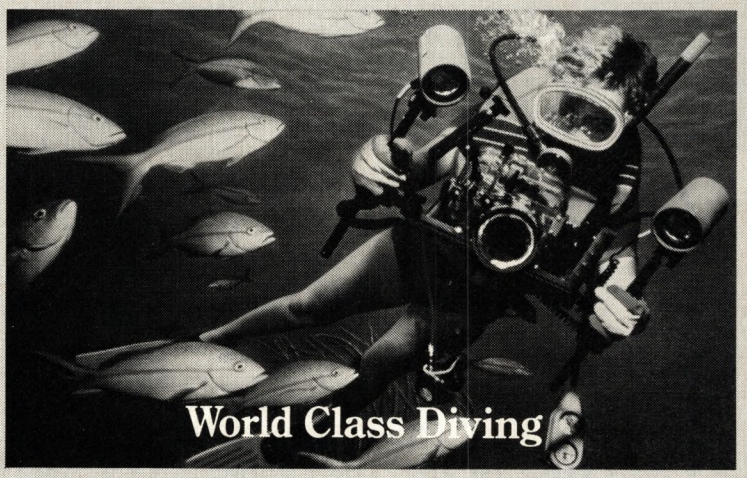
For further information on Surfside Statia, contact: Surfside Watersports, 1838-40 North Main Avenue, Scranton, PA 18508; (717) 346-6382 or (800) 468-1708 (outside Pennsylvania).

SOTO'S/HOLIDAY INN PACKAGE

A super value in a winter dive package is again available through April 19 from Bob Soto's Diving, Ltd. and the Holiday Inn, Grand Cayman. The Super Diver package, for six, four or two days of diving, includes two tank morning wall dives, a night or afternoon dive, a Bob Soto's T-shirt, accommodations and full breakfast. Participants can upgrade at a minimal charge to Soto's North Wall dive trips or Double Deep (Edge) program.

For more information call toll free (800) 421-9999 or write to Holiday Inn, Grand Cayman, 5100 Poplar Ave., Suite 2219, Memphis, TN 38137.

THE BONAIRE BEACH HOTEL



Bonaire Beach offers 145 rooms on 12 waterfront acres with two restaurants, a lounge, beach bar and casino... plus a complete scuba center on the nicest and largest beach on Bonaire.
Sensational diving, uncrowded and relaxed.
And now, FREE windsurfing, sailfish sailing, day and night tennis, daily games and activities program, and mini golf.

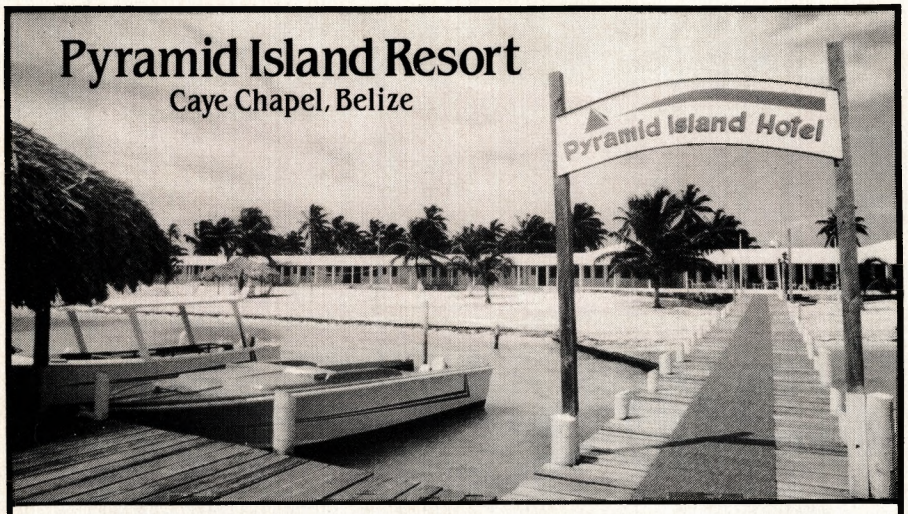
For information and reservations call I.T.R. toll free 800-223-9815. In N.Y. 212-840-6636.

COPTHORNE HOTELS

We offer unique and economical trips to all the popular dive destinations including the Caribbean, Mexico, Red Sea, the Maldives & the Great Barrier Reef. All locations available to groups and individuals. Call to find out about our monthly specials.

Underwater Adventure Tours
A Division of Milito Enterprises

732 W. Fullerton
Chicago, IL 60614
800-621-1274
312-929-0717



Pyramid Island Resort
Caye Chapel, Belize

The Great Escape

Escape to our private island. Just five minutes from the Caribbean's best kept secret—Belize's Barrier Reef. Land on our 3,300′ cemented airstrip or dock in our full service marina. 32 air-conditioned rooms on the beach, a bountiful bar, local and international dining. Enjoy our full watersports facilities, play tennis or volleyball, or just relax and escape.

FROM: $599.00
per person double occupancy
- 6 nights/7 days • 3 meals a day
- Air transfers to and from Belize airport
- 2 Barrier Reef dives a day
- Unlimited beach diving
- Free tanks and weights

Taxes and service charge included

Call toll free in the US • 1-800-325-3401
P.O. Box 1545, Ashland, Kentucky 41105
OR write us at: Pyramid Island Resort, P.O. Box 192, Belize City, Belize, C.A.
Tel. 011-501-02-44409



Award Class Diving

With Special Diving/Accommodation Packages Available



PHOTO BY MARK M. LAWRENCE

- Award winning dive boats
- Diving Destination of the Year award
- Award class condominiums with many luxurious amenities available.
- PADI/NAUI/SSI/YMCA training available
- Most beautiful reefs in the Western Hemisphere
- Safe, dependable diving with instructors on every boat



CAYMAN'S LARGEST CONDOMINIUM MANAGEMENT COMPANY
HOSPITALITY WORLD LTD.

Call for reservations:
SCUBA TOURS, INC.
1-800-526-1394
New Jersey
(201) 256-9115

DON FOSTER'S
Dive • Grand Cayman Ltd.

EXPLORING
Old Tales Are Sometimes True

TEXT AND PHOTOGRAPHY BY HOWARD B. TOWER, JR.

The captain staggered down the path toward his vessel moored at the water's edge. It had been an enjoyable evening with female companionship and good whiskey. Now it was time to continue his freight run up to Middleburg, Florida. Darkness didn't bother him for he knew Black Creek like the back of his hand. His two crewmen untied the ropes and pushed the boat from shore as the engine fired up. With lanterns hanging from bow and stern the trade vessel headed upstream. A short time later the crew was asleep and the captain was groggy—his mind numbed by whiskey.

Suddenly the boat entered a sharp bend known as Devil's Elbow. The captain turned the wheel abruptly and over steered. The bow, stacked with goods, submerged for an instant and flooded. Seconds later the craft sank in 50 feet of cold black water. The crew, awakened by the sudden list, jumped overboard and swam out of the swirling vortex to the shore. The captain's body was never recovered. A farmer nearby put the survivors up for the night.

My diving companion first heard this story in 1957 from an old-timer who employed him to recover sunken logs from Black Creek. When timber prices are high, many divers in the South log rivers for easy pocket money. We decided to check this tale out when there was nothing better to do. I had been on enough wild goose chases during the last few months searching for steamboats and Civil War vessels and finding nothing.

As Memorial Day approached my partner called and said, "Howard, I just know it's there; let's take a stab at it." I suggested we get one more experienced diver to stack the odds in our favor. It was a warm, sunny day when we launched our boat at the Rideout Ferry ramp.

Black Creek, by most people's definition, would be a mighty river. From humble beginnings many miles west of Florida's famous Saint Johns river in the state's northeast corner, it flows eastward until it joins with the aforementioned river. For much of its length it is 100 to 200 yards across with normal channel depths near 30 feet. Tannic acid leached from tree roots in the swamps gives the water a deep black color, hence the name Black Creek.

The town of Middleburg, at the fork in the creek, was founded during the Seminole Indian War (1835-1838). It was an

THE ALERT



The brass engine identification plate recovered from the *Alert*. Such items provide clues to the identity of a wreck.

important center of commerce until after the Civil War. Old-timers in this community have many tales about pirates, treasure and Indian activity along Black Creek.

We dropped anchor at Devil's Elbow. Staring at the mirror smooth black water, I had a gut feeling this was going to be a waste of time. The vessel, which was nameless, could be anywhere within a 150 yard section of the creek, 100 yards wide at this point. Also, the story was at best thirdhand and my research had failed to find any record of a sinking at Devil's Elbow. Snagging the wreck with an anchor was hopeless as the creek was notorious for sunken logs and trees. From past dives I knew visibility was two feet with a light.

"Too bad we don't have a magnetometer," I said.

"We are going to have to find this wreck the old fashioned way," my partners replied. "Howard, you're pretty lucky at these things, go ahead and make the first search."

I thanked them for allowing me such an opportunity and donned my equipment.

Once in the water Jack gave me a goodie bag (to put the ship in) and I descended into the inky blackness. At ten feet the last vestige of Florida sunlight vanished. My light pierced the darkness like a *Star Wars* saber. Moments later I reached bottom at 40 feet. I assessed the situation and found the current was barely perceptible. A thin layer of silt covered a compacted sand bottom.

Maintaining directional orientation was difficult. I crawled out of a mass of sunken trees at the channel edge and began a loose zigzag search pattern across the featureless landscape in mid-channel. Time passed. I was slowly going deeper and had no idea of my relative position to my partners, sunning themselves in the boat above. After 45 minutes my air was low (and so were my spirits) when, suddenly, I ran into a wall of curved timbers. I had found it! Seconds later I swam up over the edge and dropped down onto the commode, a fitting place to secure a float for my hardworking buddies.

Before surfacing I decided to do a quick survey. The wreck lay in 52 feet of

Award Class Diving

With Special Diving/Accommodation Packages Available



Individual attention given to each diver. As much or as little service as you wish to help take the work out of diving..."Don Foster calls this attention 'personalized diving.' I called it marvelous!" *Skin Diver*, May 1986

DON FOSTER'S Dive • Grand Cayman Ltd.

For reservations:
SCUBA TOURS, INC.
1-800-526-1394
New Jersey
(201) 256-9115

The Royal Palms of Cayman

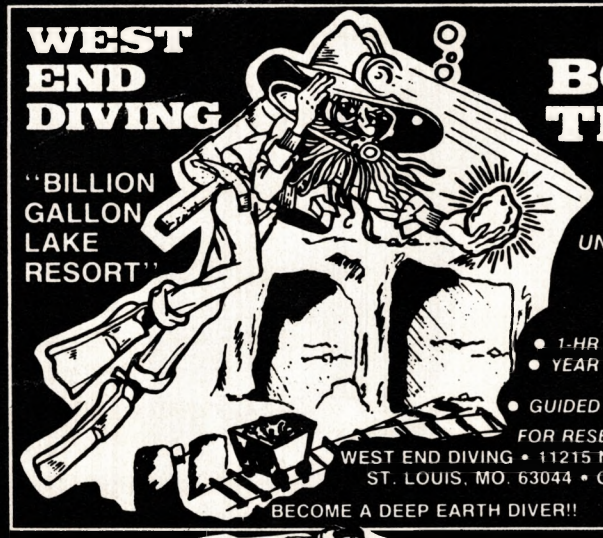
Accommodation packages available at the Royal Palms on 7 mile beach.

Let us make it perfectly clear.

A private island, 100 World Class dive sites, modern 38' dive boat, quiet beaches, lovely bungalows, magnificent sunsets, home cooking, spectacular bone, tarpon, permit & deep sea fishing. Discover Turneffe Island. Discover the Western Caribbean.

Turneffe Island Lodge
THE WESTERN CARIBBEAN

CALL 1-800-772-1002
2230 Bissonnet · Houston, TX 77005 · 713-528-3988





FILMED AND DIVED BY COUSTEAU!

Bonne Terre Mine is a leisurely one hour drive from St. Louis, located in the historic mining town of Bonne Terre, Missouri, a sleepy little mining town, with quaint restaurants and shops, as well as modern hotels. Contained in the world's largest man-made caverns is an "ILLUMINATED UNDERGROUND LAKE" with acres of COBALT BLUE WATER so still and clear it is like looking into a LIQUID WINDOW. A dive attraction that is truly a WORLD BEYOND!....A silent world of mystery and beauty which will thrill even the most experienced Diver and astound the Beginner.

Your adventure will begin at WEST END DIVING-BONNE TERRE "OLD MINE DIVE SHOPPE" where you can enjoy a cup of coffee, and pick up that last minute necessity. NEXT you will meet your Diveguide whom you will follow through the mine entrance and down the well lighted historic Mule Trail to the staging area (adjacent to the LAKE), where you will change into your diving equipment in the locker rooms for men and women. YOU WILL THEN descend the stairs to the diving platforms in the BRIGHTLY LIT "BILLION GALLON LAKE". After a dive briefing by your Diveguide and routine equipment check, you will gear up for an unforgettable dive.

RESERVATIONS (DIVING BY RESERVATION ONLY)

You must make reservations at WEST END DIVING CENTER-ST. LOUIS (314-731-5003) along with a deposit for the time and date you or your group would like to dive. WEST END DIVING-BONNE TERRE "OLD MINE DIVE SHOPPE" and "BILLION GALLON LAKE" are open on SATURDAY and SUNDAY, 9 AM to 5 PM. DIVING RESERVATIONS can be made for the following time periods:

9am thru 5pm

CALL FOR COMPLETE PACKAGE PRICES

CERTIFICATIONS ACCEPTED: NAUI PADI SSI YMCA NASDS Equipment Rentals Available.

DIVING. . . . where tranquility is boundless and memories are forever.

Discover The Best! COZUMEL Above And Below!

$356.00

- **8 days, 7 nights at the new Bahia Hotel**
- **6—2 tank boat dives with lunch**
- **Unlimited beach diving**
- **Includes mandatory 15% Mexican Hotel Tax**
- **Free disco pass**



The new Bahia Hotel is located right on the harbor in downtown San Miguel. Enjoy diving with Carlos Sierra's Dive Cozumel by day and jump into SAN MIGUEL's nightlife at your convenience. After all, Cozumel offers the BEST (Diving & Jiving) vacation available, and at the BEST price!

To Discover The Best Cozumel Has To Offer Day And Night

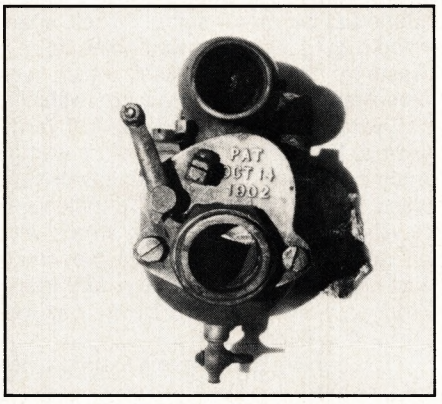
Call NOW **1-800-446-2166**

Texas residents call (713) 446-2166 collect for reservations only.

Two Worlds Travel **1307 First St., Humble, TX 77338**

water, listing 30 degrees to starboard. The bow pointed downstream, indicating the vessel had turned around while sinking. She was about 45 feet long and the superstructure was missing. I surfaced and shouted the news to my partners.

In 15 minutes the three of us were on this piece of submerged history. Stashed somewhere was supposed to be the captain's life savings in coins. We all agreed this time capsule would be explored in a careful, scientific manner. Because of the list the interior starboard side was buried in silt and sand. The first object I studied was the engine. It had two massive cylinders ten inches across and was obviously gasoline powered—solid proof the vessel was lost after 1900. The engine was



Brass carburetor showing patent date.

constructed of iron, now covered with one-half inch of corrosion. There were two carburetors crafted from solid brass, one for each cylinder. All gauges, valves and tubing associated with the engine were brass and attached like Christmas ornaments. I spotted a brass rectangle on the side of one cylinder and carefully pried it off using my knife.

Next to the engine were six objects covered with silt and clustered in a rectangle. Using my hand I fanned the silt. When visibility returned I saw six kerosene lanterns, no doubt destined for a general store. The sheet metal construction crumbled when touched. However, the clear glass globes were in mint condition with the name Deitz embossed on each. I brought all six to the surface.

To avoid decompression we limited our total down time to 100 minutes. My partners spent their time in the bow area of the wreck and found cases of medicine and sauce bottles still corked. One diver slipped a dozen inside his wetsuit and surfaced. The lack of water pressure allowed the well aged contents to pop the corks and inflicted painful burns on his skin. Scores of clear glass, pre-machine manufactured bottles were recovered. Also located were cases of canned goods, rusted and cemented together.

Returning to the ramp we analyzed the situation. There was no doubt this wreck was the freight boat of which the old-timer had spoken. The pre-machine bottles plus the gas engine were proof the vessel sank during the early 1900s. The engine identification plate was engraved with following: J.W. Lathrop Co, Manuf's. of Marine Gasoline Engines, Mystic, Conn., USA, 24 H.P. No. 7970. Our plan was to dive the site the next Saturday, bringing tools to help recover the antiquities.

This excursion was very productive. I used my first tank removing the two solid brass carburetors. They were marvelous examples of early mechanical technology and in working condition. Each was embossed: The Schebler—Indianapolis, Indiana Pat. Oct. 14, 1902—proof our vessel was built no earlier than 1903. Another interesting object recovered was a brass oil pump with a glass tube to physically observe the oil flow.

My partners located an electric generator and many cases of glassware and recovered the vessel's mooring cleats. We used our remaining air looking for the captain's savings, but to no avail. In frustration, one diver popped the rusty bolts holding the commode and brought it to the surface. He later turned this artifact into a planter.

On subsequent dives we carefully excavated the interior starboard side, buried in silt, and found the vessel's compass, tools and a host of personal belongings. Everyone exploring wrecks should realize the greatest concentration of antiquities will be found on the side to which the vessel lists and in all probability these will be buried. We did not find the money. I was still frustrated because we had not identified the craft. I believe that divers have a responsibility to identify ships they locate for two reasons: First, a vessel's name adds historical meaning and value to the artifacts recovered and second, the ship becomes a meaningful piece of history to society at large.

With this in mind and realizing that someone living in the area might know something related to the sinking I began interviewing old-timers near Middleburg. One old gentleman lit up when I mentioned the sinking at Devil's Elbow. "Know all about it," he said. "I was a small boy, six years old, when them wet, cold men come to our door in the middle of the night. My daddy treated them right. Yes sir, that was back in December 1919. That old boat was the *Alert*. That was her name, the *Alert*."

The following week I searched local microfilm newspaper files but found nothing about the *Alert*. Here is a real lesson for divers: Don't discount oral tales, for some are based in truth. Trade vessels like the *Alert* are scattered all over the nation in navigable waterways. Some are centuries old and most are not documented. Real diving adventure may be in your own backyard.

Alpha Beta Gamma...

In the beginning you could dive almost anywhere and see reefs and walls that no one else had touched. No More! Today, everyone has already been there ahead of you. Unless you come to Grand Turk.

Just an hour and a half southeast of Miami is hidden some of the most untouched diving left in the Caribbean. In less than 25′ our wall drops away so quickly it snatches your breath while Black Corals as thick as a forest grow just 15′ below the drop.

And Beaches? You've heard of someone else's Seven Mile Beach? Ours is Eight! And there's hardly a diver on it.

Kittina Hotel—Turks & Caicos Islands
4197 Braganza Ave, Coconut Grove,
FL 33133 · (305) 667-0966

Omega—Diving Service of Grand Turk
8420 SW 133 Ave RD, Suite 319
Miami, FL 33183 · In the U.S.: (305) 385-0779
800-843-7544

"Omega. The Last Name in Diving"

©1986 Steve Lucas & Associates

BAHAMAS DIVING



BOTTOM TIME II
"THE ROLLS ROYCE OF DIVING"
SPECIAL NEW YEARS TRIP DEC 28-JAN 2
FT. LAUDERDALE TO BAHAMAS & RETURN
This new ultra-stable 86′x30′ catamaran is today's answer to the divers dream.
Contact: BOTTOM TIME ADVENTURES
P.O. Box 11919, Ft. Lauderdale, FL 33339-1919
1-800-345-DIVE (Outside FL) • 305-561-0111 (Inside FL)

WANT TO SCUBA?



Before you try, take lessons from an experienced professional instructor and receive your official certification card. For current classes and scuba instructors available in your area, check the DIVERS DIRECTORY in the back of this magazine.

skin diver magazine



photos/Bill Valente

U.S. NAVY'S EXPLOSIVE ORDNANCE DIVERS

Excitement Of The Unexpected

BY DAVID KASHIMBA

U.S. Navy Explosive Ordnance Disposal (EOD) teams identify, render safe and dispose of foreign and domestic, surface and underwater explosive ordnance. These services are typically performed aboard ships and at shore installations throughout the world. They also support the EOD forces of the Army, Air Force, Marine Corps and designated civilian authorities.

"Navy EOD teams are often asked to assist local police forces," NAS Alameda EOD technician HT1 Scott Warren said. "But in the Bay Area, most of the police forces have their own EOD teams. When we get a call from bay area police, it's usually for military made ordnance or to locate a piece of evidence thought to be discarded in water."

When that water is the San Francisco Bay, the EOD diver has his work cut out for him. "The optimum visibility in the bay is from two to three feet," said NAS Alameda EOD chief Donny Oliver. Imagine trying to find a discarded gun used in an armed robbery. A report is received that someone was seen throwing something resembling a pistol into the bay in the Point Richmond vicinity. That may narrow it down a little, but it's still like finding a needle in a haystack.

"When we get a call like that we simply go to the location with our diving equipment and start searching the bottom,"

WHY DIVE GRAND BAHAMA?
Reason No. 7

"Feed morays and groupers with me on one of the most beautiful reefs in the Bahamas!"



PRESLEY KNOWLES
UNEXSO Guide

Compare facilities and prices. Then you'll know why the famous Underwater Explorers Society is famous.

Write for our Dive Destination Checklist and color brochure, and we'll send you a certificate for a FREE DIVE in the Bahamas!
One certificate per customer. please.

UNDERWATER EXPLORERS SOCIETY
UNEXSO
P.O. Box F2433 Dept. K
Freeport, Grand Bahama (809) 373-1244

NIGHT WALL DIVES



150 foot maximum depth. Experience the majesty of the Cayman Wall at sea level pressure and air-conditioned comfort. No decompression or residual nitrogen penalty time.

45.00 U.S. day dives
55.00 U.S. night dives
Special group rates available
Early reservations advised

Atlantis
GeorgeTown Harbour
Grand Cayman Island, B.W.I.
1-809-949-7700 (On Island **97700**)



DIVE AWAY ON RUM CAY

Unsurpassed world-class diving on a truly tranquil Bahamian island. Beautiful reefs, abundant marine life and the 120-year-old shipwreck H.M.S. Conqueror add up to spectacular offshore diving.

The Rum Cay Club is small and charming . . . caters to divers. Full service dive shop, equipment rentals, specialty dive boats and professional darkroom for overnight color film processing.

Excellent food, accommodations and camaraderie.

Write or call for information.

RUM CAY CLUB

UNSPOILED JEWEL OF THE BAHAMAS
P.O. Box 22396 • Ft. Lauderdale, FL 33335
Tel. collect: (305) 467-8355

KICK UP YOUR HEELS IN HAWAII

Complete packages available from Hawaii's 24 best dive shops.



Send $3.00 for our 24 page full-color Dive Guide to:

NAME

ADDRESS

CITY, STATE, ZIP

I'd like to Kick Up My Heels on: Oahu, Kauai, Maui, Big Island (circle one or more)

DESTINATION HAWAII

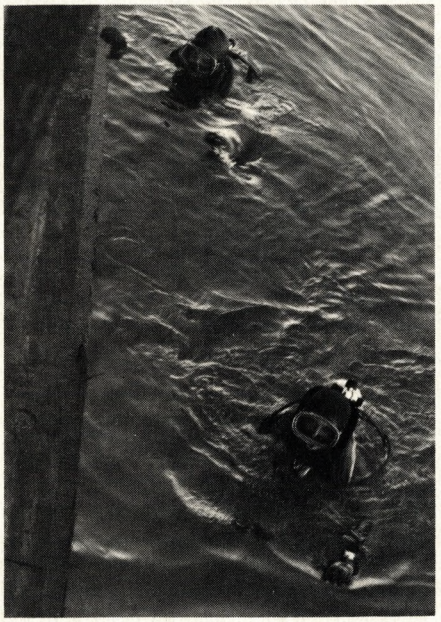
P.O. Box 90295 SDM
Honolulu, Hawaii 96835

Hawaii's 24 Best Dive Shops

Warren said. "The bottom of the bay is all silt. You can't see anything so you have to feel your way. You always hope what you're searching for is sitting on top of the silt, otherwise you have to dig down into the muck."

"It's usually all feel and touch when we're dealing with underwater ordnance as well," said Oliver. "During our diving and EOD training we learn the exact measurement of all the parts of our body: from tip of thumb to tip of index finger, from elbow to hand, knee to foot, etc. During training, the instructors would blindfold us before a dive. We would have to locate the ordnance, identify it and render it safe—all by touch and feel."

After passing a physical screening test



Explosive Ordnance Disposal divers Scott Warren and Roger Perkins at the water's surface prior to a final equipment check.

and 13 weeks of diving school, the EOD applicant then goes on to approximately one year of training in Naval School, Explosive Ordnance Disposal in Indian Head, Maryland. In addition, EOD personnel are parachute jump qualified. "The training is hard work," said Oliver. "You start every morning with physical training, continuing all day and into the night with classroom and practical instruction. An average training day lasts 14 to 15 hours."

What are the incentives to join? An EOD technician does get $110 extra per month for demolition pay and $175 dive pay. But there are stronger incentives than money. "Before volunteering for EOD I was contemplating getting out of the Navy," Oliver said. It was then that Oliver heard about the professionalism of EOD. He's been in EOD four years now and has no intention of leaving. It takes real commitment and professionalism just to get through the EOD training. "I like the excitement of the job," Oliver said. "Every day is different. You never

Holiday Inn®
International Beach Resort
GRAND CAYMAN
CAYMAN ISLANDS, B.W.I.

WINTER/CAYMAN

SUPER DIVER

Includes:
- **3 nights accommodations at Holiday Inn**
- **Full American breakfast daily**
- **2 morning 2-tank Dives**
- **1 Afternoon 1-tank Dive**
- **Bob Soto's T-shirt**
- **Use of all Holiday Inn facilities—free tennis, free admission to night club and more . . .**

$269 p/p dbl. occ.

Also Available:

5 NIGHTS **$459** p/p dbl. occ.
- **5 nights accommodations at Holiday Inn**
- **4 morning 2-tank dives**
- **Full American breakfast daily**
- **1 Night Dive**
- **Bob Soto's T-shirt**
- **Use of all Holiday Inn facilities—free tennis, free admission to night club and more . . .**

7 NIGHTS **$649** p/p dbl. occ.
- **7 nights accommodations at Holiday Inn**
- **6 morning 2-tank dives**
- **Full American breakfast daily**
- **1 Night Dive**
- **Bob Soto's T-shirt**
- **Use of all Holiday Inn facilities—free tennis, free admission to night club and more . . .**

Prices do not include 10% service charge and 6% Government room tax which will be quoted at the time of booking.

Bob Soto's
RON KIPP'S
DIVING LTD.



DECEMBER 16, 1986 THRU APRIL 20, 1987

1-800-421-9999

GO DIVING!

CAYMAN ISLANDS
TURKS & CAICOS
ST. LUCIA
COZUMEL
BELIZE
SABA
ST. EUSTATIUS
ROATAN & GUANAJA
BONAIRE & CURACAO
GALAPAGOS ISLANDS

1-800-328-5285
612-544-7168

Go Diving Inc. • 715 Florida Avenue South • Minneapolis • 55426

DIVE BVI
VIRGIN GORDA

Dive the Wreck of the Rhone, Mosquito Rock, Chikuzen, and much, much more!

8 day 7 night packages
5 2 tank dives
from $369.00 p.p.
LEVERICK BAY
North Sound, Virgin Gorda
British Virgin Islands
Call toll free
1-800-387-4964
In Virgin Gorda call
(809) 495-5513

LEVERICK BAY

BROWNIE'S THIRD LUNG

THE JOYS OF **UNLIMITED** AIR

Clean, SURFACE-SUPPLIED air. Deck mounts and floaters.

EIGHT gas and electric MODELS.

FREE brochure

Call Today: 800-327-0412 * FL: 305/462-5570
Write: 940 NW 1st St., Ft. Lauderdale, FL 33311

Dive BERMUDA

"THE BEST SHALLOW WATER WRECK DIVING IN THE WORLD!"

SOMERSET BRIDGE HOTEL & SKIN DIVING ADVENTURES

— OFFER YOU —

"TROPICAL DIVING" only 1½ hrs. from the East Coast!

THE HOTEL

Large, attractive efficiency units, all with A/C and phone service. Pool, jacuzzi bath, restaurant and bar. Welcome Rum Swizzle Party on Mondays. Dive Boat service from the Hotel dock and more. Major Credit cards accepted.

PACKAGES FROM:

$400

PER PERSON
DOUBLE OCCUPANCY
Includes:
5 boat dives, tank, pac & wts. 5 nites accomodation, Mon. Rum Swizzle Party and more!

THE DIVING

Bermuda's most established diving operation. PADI, NAUI, SSI Facility. 3 large custom dive boats, 1 and 2 tank trips to wrecks and reefs. U/W Cameras. Friendly, professional instructors and crew. Diving for novices to pros!

1-800-468-5501

somerset bridge hotel
P.O. Box SB 149
Sandy's 9-20, Bermuda

DAVE McLEOD'S
SKIN DIVING
ADVENTURES, LTD.
P.O. Box SN 165
Southampton 8, Bermuda

know what to expect."

Indeed, the excitement of the unexpected is ever present in each EOD technician. "The unexpected is exciting," Warren said. "But it also scares you. When we receive a call, the caller usually blows the situation out of proportion. Our hearts are in our throats until we arrive at the scene. Usually it's nothing—a defused WW II torpedo or a briefcase full of paper instead of a bomb."

But the danger is there often enough as Warren found out while serving in Hawaii. During WW II the military used a small uninhabited island for bombing practice runs. "A few years ago a fisherman found a 500 pound live bomb dud fired," Warren said. Dud fired simply means the bomb didn't explode when it hit the water. "When our EOD team started diving in the area, we found more than one bomb. By the time the operation was over, approximately 70 bombs were found and detonated."



Lieutenant j.g. Randall Getman suits up prior to a training dive. He is the officer in charge of NAS Alameda's EOD dive team.

When a surface ordnance, such as a bomb, lands in water, EOD personnel treat it as underwater ordnance. If the ordnance is in deep water, time becomes a crucial factor. At 190 feet an EOD diver has only five minutes of bottom time. When working at such depths, one diver will descend, locate and try to identify the ordnance and come up in less than five minutes. Once on the surface, he explains his findings to the next diver who then descends to continue the job.

"The last thing you want to do is disarm any ordnance," Warren said. "You do as much as you can remotely. In most situations, once the ordnance is identified the next diver will descend, set time fused charges, return to the boat, move a safe distance away and then initiate the time charge."

But there are times when remote detonation is not possible. This is usually with surface ordnance in an area that can't be evacuated in time. "It's times like this we

really earn our pay," Warren said.

EOD personnel maintain all their own equipment, from caring for and packing parachutes to repairing a faulty regulator.

Because of the nature of the job, staying in top physical condition is essential. NAS Alameda's EOD team is constantly training and making practice dives. "We train right here in the bay," Oliver said, "from the waters right here in Alameda to a 145 foot deep hole off Angel Island."

In addition to their day to day training, they have a mine recertification inspection every two years and an operational readiness inspection every 18 months. "These inspections are like going through our dive and EOD training all over again," Oliver said.

EOD personnel remain and advance in their respective ratings while working in EOD and remaining familiar with the newest EOD procedures and equipment.

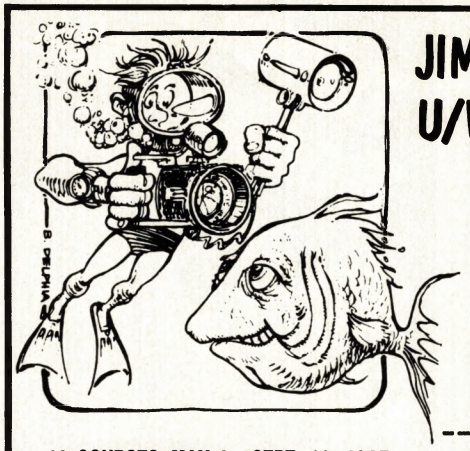
When asked if he ever had a particularly hair raising experience, Chief Oliver said: "No, but I did have an experience that got my attention. We had a bomb threat call at a Naval hospital. During the course of my search, I opened a utility closet and heard something ticking. That definitely got my attention," he said smiling. After searching the closet, he found the source of the ticking. Fortunately, it was a harmless timer someone forgot to turn off.



Steven Baker helps Scott Warren into his diving gloves. Getting assistance from a fellow diver saves much time and energy.

One of the most difficult types of ordnance is the homemade bomb. There is no end to the variation of tricks and traps that can be built into it. "If a homemade bomber really wants to get you, there's a good chance he will," said Warren. "For example, we usually X-ray homemade ordnance before touching it. This gives us a good idea of how it works. But, a homemade bomb can have an X-ray sensitive triggering device built in."

EOD is a volunteer program and as such it is special with special people. In those organizations where the volunteers must depend on one another, often in life and death situations, the people are even more special. The camaraderie that envelops the EOD community is found in few other places.



JIM & CATHY CHURCH
U/W PHOTO COURSES
Grand Cayman
Good Instruction
Good Diving
Good Fun
Good People

10 COURSES: MAY 2 - SEPT. 10, 1987

Join us for the best U/W photography courses available. Learn with fun-loving people who know how to teach. Multi-level courses for beginning and experienced photographers. Six diving days at friendly Sunset House, where new, uncrowded dive sites are only a few minutes away. Beginners and experienced photographers welcome. We've helped hundreds during the past twelve years.

To: Jim and Cathy Church
P.O. Box 80, Gilroy, CA 95021
or phone (408) 842-9682.
Send me a complete course brochure right away.

Name _____
Address _____
City _____
State _____ Zip _____

Discover Venezuela

8 Day–7 Night package
$765

SEA VENTURES
144 Railroad Ave., #204
Edmonds, WA 98020
(206) 778-7622

VIASA



"The country in the Caribbean"

- Air-conditioned, ocean view room
- R/T Airfare from Miami included
- 2 boat dives daily, 1 night dive
- Lunches on diving days, refreshments
- All transfers, baggage handling, airport assistance, gratuities
- Complimentary tennis and swimming pool
- Private beach, daily activities
- Full dive shop/travel agent co-op

GROUP RATES

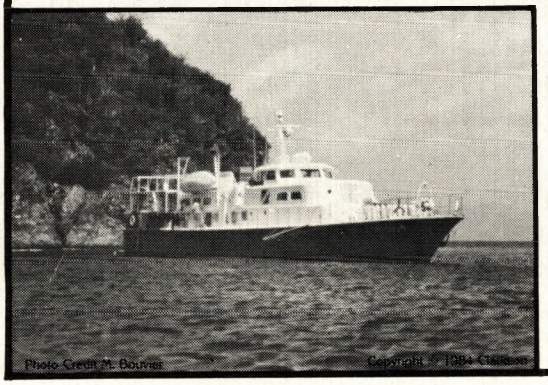
WHAT IS A TROPIC BIRD?

A. A graceful seabird.
B. The best dive boat in the B.V.I.
C. The best vacation you will ever have.
D. All of the above.

Call us toll free for the correct answer, and the answers to any other questions you have.

Tropic Bird

THE live-aboard dive boat in the British Virgin Islands.



BEST DOLLAR VALUE
12 Double Staterooms
Fully Airconditioned
Unlimited Diving
Guaranteed Diving
Night Dives
TV Movies & Games
Sun Deck & Bar

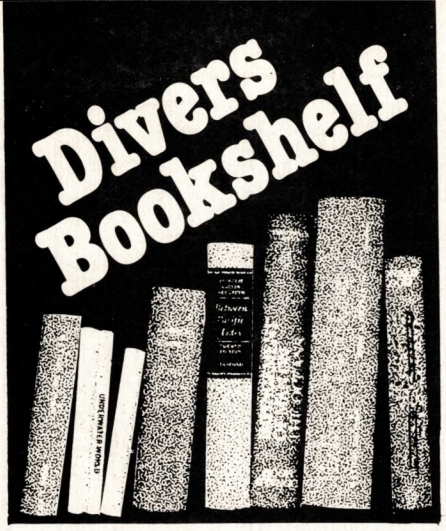
Call Toll Free
800/526-1394
800/524-2027
In NJ 201/256-9115

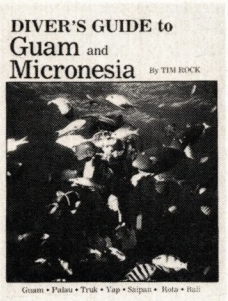


Wet your whistle but don't drown it.

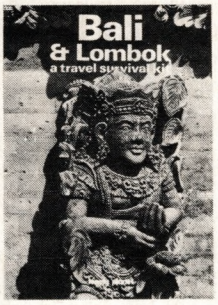
Don't drink too much of a good thing.
The Distilled Spirits Council of the United States.
1300 Pennsylvania Building, Washington, D.C. 20004

Divers Bookshelf





Diver's Guide to Guam and Micronesia—With text and photography by Tim Rock, this book features descriptions of dive sites and marine life, historical backgrounds, helpful tips, maps and personal insights. $8.95. Marine Images, P.O. Box 24666 MPO, Guam, GU 96921.



Bali and Lombok: A Travel Survival Kit—This second edition covers diving, surfing, cultural events, transportation, visas and weather. It includes a glossary of appropriate words and phrases. $7.95. Lonely Planet Publications, 1555D Park Ave., Emeryville, CA 94608.



Diver's Guide to U/W Mexico—Written by Michael and Lauren Farley, this book is a comprehensive guide to Mexican waters. It contains site descriptions, maps and listings of dive shops. $14.95 plus $1 handling, Marcor Pub., P.O. Box 1072, Port Hueneme, CA 93041.

EAST END — GRAND CAYMAN
Dive The Famous North Wall,
Wrecks, The Maze, Snapper Hole,
Garden of Eels and Many More...
UNLIMITED SHORE DIVING
All Rooms Beach Front, A/C, Ceiling Fans

The Tortuga Club
Frank Conolly, G.M.

DIVERS $80.00 p/p
daily M.A.P.
Non-divers Deduct $20.00
Includes: 2 One-Tank Dives Daily, Transfers, 2 Meals, Tennis, Sunfish.
U.S.A. **1-800-327-8223**
FLA **1-800-432-8894**



DIVE ABACO!!
With legendary Skeet LaChance. 150 miles of unspoiled Barrier Reef. Contact P.O. Box 555, Marsh Harbor, Abaco, Bahamas **1-809-367-2014**

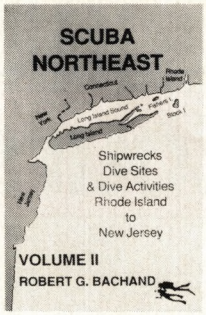
MOTORHOME RENTALS BY U-HAUL®
TOLL FREE RESERVATION:
1-800-821-2712;
In Arizona, call collect,
1-263-6679. Ask for Operator 62.

Black Coral Sculptures
Excellent carved scuba divers
CARIBBEAN BLACK CORAL
201 Hospital Drive
Tylertown, MS 39667
601-876-6107 or 876-3424

DIVEBOAT
CAPTAIN'S LICENSE
PASS THE COAST GUARD EXAM
We GUARANTEE Your License
CLASSES HELD NATIONWIDE
SEASCHOOL
THE LAW SCHOOL OF THE SEA
TOLL FREE 1-800-237-8663 IN FLORIDA 1-800-282-2278

NEED AIR?
For a listing of air stations in your area, or the state you are planning to visit, check the DIVERS DIRECTORY in the back of this magazine.





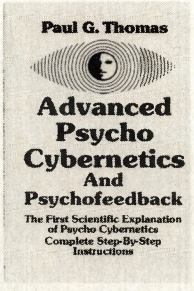
Scuba Northeast—By Robert G. Bachand, Volume II has updated information on sites from Rhode Island to New Jersey. It contains a marine life guide and Loran C coordinates for shipwrecks. $8.95. Sea Sports Pub., P.O. Box 647, Belden Station, Norwalk, CT 06852.



The DAN Emergency Handbook—This waterproof guide, by John Lippmann and Stan Bugg, contains first aid information to be used on-site when a diving emergency occurs. Has an alphabetical listing of symptoms. $9.95. Pisces Books, One School Street, Glen Cove, NY 11542.



Shipwrecks on the Virginia Coast—By Richard and Julie Pouliot, this book discusses shipwrecks in this area from 1875-1915, including the part played by the United States Life Saving Service. $16.95. Cornell Maritime Press, Inc., P.O. Box 456, Centreville, MD 21617.



Advanced Psycho Cybernetics and Psychofeedback—Paul G. Thomas' book discusses the mechanisms of the human brain and explains how goals can be achieved by harnessing the imagination. $14.94. Classic Pub., 150 S. Barrington Ave., Los Angeles, CA 90049.

COZUMEL DIVER'S RESORT
Galápago-inn
- 34 A/C Ocean-front Units
- Freshwater Swimming Pool
- New "Fat Grouper" Restaurant Overlooking the Ocean
- Complete Dive Shop on Premises
- Five Custom-made Dive Boats
- Friendly Staff

PACKAGES FOR INDIVIDUALS AND GROUPS
DIRECT FLIGHTS FROM HOUSTON, DALLAS, MIAMI & ATLANTA

S. C. U. B. A.
COZUMEL

GALAPAGO INN
P.O. BOX 289
COZUMEL Q ROO MEXICO
PH. (011-52-987)
20663

FOR RESERVATIONS & INFORMATION
1-800-847-5708
AQUA-SUB-TOURS
P.O. BOX 810306, HOUSTON, TX 77281
(713)783-3305



Sand Dollar
Condominiums & Beach Club
Bonaire, Netherland Antilles

For Sales Information Contact Sand Dollar:
50 Georgeton Road, Bordentown, N.J. 08505
(609) 298-3844

COME LIVE IN LUXURY ON BONAIRE
CONDOS FOR SALE & RENTAL

- Beautiful beachfront property, every unit with balcony facing the sea.
- Diving and snorkling right off the beach.
- Full service underwater photography and video facility. • Andre Nahr dive master
- Scuba instruction available.
- Coming soon . . . complete watersports activities, swimming pool, tennis and shopping.

For Dive Package & Rental Information Call:
The Travel Barn at (609) 298-2298 or
Robert Reid Assoc. 1-800 223-6510

PETERSEN'S 4WHEEL & OFF-ROAD
Takes You Where You Want To Go!

Hills, mud, water, sand, ice—nothing stops an off-road driver from going where he wants to go . . . and 4WHEEL & OFF-ROAD makes sure you get there!
Every month America's most popular off-road magazine shows you how-to winch your way out of tight spots while also providing challenging on and off-road tests of 4 x 4's of all shapes and sizes, as well as features detailing the success of other drivers and how they made their success coupled with expert advice on cost-cutting tips that won't dent your budget, makes 4WHEEL & OFF-ROAD a vital tool you can't drive without! 4WHEEL & OFF-ROAD—Takes You Where You Want To Go!



NOW ON SALE AT YOUR LOCAL NEWSSTAND



SDM'S

U/W Video Course

U/W Video: Is It For You?

TEXT AND PHOTOGRAPHY BY JIM AND CATHY CHURCH

The school of silvery tarpon hovered in the huge coral canyon off Cayman's wall—there must have been 100 or more. They casually parted and swam around and above us as we glided gently among them. Cathy knew that none of her 36 still photos could possibly convey the feeling of the graceful actions of these three foot tarpon. But Jim's video camera recorded not only the beauty of these large fish, but their movements as well.

Back aboard the Cayman Aggressor II, *we quickly dried off and headed to the saloon to see our video tape on the large TV monitor. We were soon reliving the dive as we watched the tarpon glide around us again. We slowed parts of the action, stopped and played several portions over again. We shared our excitement and stories of the dive with the other divers, actually adding to the initial joy of swimming with those magnificent fish. We were getting more than just the 30 minutes of bottom time with the tarpon; it was like making a second dive. The video tape was a real hit!*



Camcorders have become small and portable—easily adaptable to use in U/W housings.

You'll be amazed at how easy it is to shoot your first U/W video. You don't need to understand photography or complex electronics to enjoy it. You only need to set a few simple switches when you place the video camera inside the housing. And underwater, you simply aim the camera at your subject and press the on/off switch.

When you see your first underwater video tape, you'll relive all the highpoints of the dive. You'll see your buddy feeding the fish and will enjoy the movement, the action and the excitement. It won't matter how well you handled the camera, your first efforts will be exciting.

You won't need to struggle with systems that weigh 50 to 100 pounds in air. Small 8mm camcorders, such as the Sony CCD-M8U, and a housing, may weigh less than ten pounds in air.

Since the video camera automatically adjusts itself for the correct exposure, you don't have to bother taking exposure meter readings or manually setting lens apertures. The camera responds almost immediately to changes in the brightness of the scene. Thus, even your first video will be properly exposed.

The tape itself is simple; you merely purchase regular video tape cassettes. A still photographer, on the other hand, must plan ahead for lighting conditions and lens changes. He must choose the appropriate film for each U/W photo adventure. You, however, use the same tape for all of your video recording.

You don't need video lights for most of your U/W recording, especially when you

Using 8mm cassettes, the Sony Handycam is one of the smallest camcorders.



GLOSSARY

Camcorder: A video camera with a built-in sound recorder.

Contrast: The difference between the brightest and darkest areas in the picture. The greater the contrast the video camera can record, the more visible will be the details in bright and dark subject areas.

Depth of Field: The area in front of the camera—from a minimum distance to a maximum distance—in which your subjects will be sharply focused.

Focus: The adjustment for camera-to-subject distance. A picture taken with the proper focus will appear sharp on the TV screen.

Resolution: The amount of fine detail you can differentiate in a picture. The higher the video camera's resolution, the finer the details the camera can record. The camera, recorder and TV set all affect resolution.

VCR: Video cassette recorder. It records and replays video tapes.

Video Cassette: A plastic container that holds the video tape. Video cassettes come in various sizes for different tape formats, such as 8mm or ½ inch, and for different tape lengths.



Sony offers an U/W housing for the Handycam, as do other manufacturers. With these systems divers can create quality recordings of their subsurface experiences that can be viewed immediately upon surfacing and replayed time and again.

are just getting started. In reasonably clear water, you will be amazed at what you can film with sunlight alone. Most video cameras will record in surprisingly dim conditions. Naturally, the brighter the sunlight, the better the image quality and the greater the depth of field. Later, when you are more experienced and wish to add more color to your pictures, especially for your close-ups, you will probably use an U/W movie or video light.

With a wide angle camera/housing system, in bright lighting conditions, everything you aim the camera at—from a few inches to infinity—will be in focus. You can film a friendly grouper only inches from the camera or entire divers three or four feet away. You don't have to guess at distance or worry about seeing a focused image without your prescription mask. In dim conditions, however, depth of field will be reduced.

Video is finally within reach of the average sport diver. The size, weight and cost have all been reduced. Video technology has advanced to the point where amateur systems produce images that rival those produced by professional equipment just a few years ago. The resolution, contrast and color produced by the new camcorders on 8mm tape is amazing!

If all of this sounds so easy it may get boring—there is a tough part. Right now video is a novelty. Seeing oneself on the screen is exciting, regardless of the story line. But don't be fooled by the technical ease of video. The creative challenge is in keeping your audience's interest after the first 15 minutes. As your experience with video expands, you will discover the advantages of improving your camera handling techniques, developing a story line, editing, adding music and perhaps even narration. This is the ultimate challenge of video and will be a major part of our upcoming series.

Video taping U/W is simple. There is no adjusting focus or calculating exposure. Recordings as long as two hours can be made on one cassette and the tapes can be reused.



ADVANTAGES

When compared to Super-8 movies or still photography, U/W video offers many advantages:

*One miniature 8mm cassette will record up to two hours of video images. With Super-8, this would require approximately 40 rolls of film. That adds up to 40 film changes and 40 rolls to process, edit and splice.

*Airport X-rays don't affect video tape, but metal detectors and strong magnetic fields may affect recordings on them.

*The built-in microphones provide excellent sound recording.

*You can play back your tape anyplace that has a compatible VCR and TV set. We even showed one tape while our group was riding on a bus (which had a VCR and TV mounted above the windshield) in the Philippines. Seeing ourselves on TV was more fun than watching the driver's regular tapes.

*You don't need to wait for film processing or set up complex projection equipment. The tape can be carried unobtrusively to a party and only brought out upon request. (You might look too obvious showing up with two projectors, a dissolve unit and a sound system!) The guests may feel more at ease enjoying your video story on a TV screen as opposed to being trapped in a darkened room for slides or movies. Making copies for relatives or friends is also easy.

*If your U/W efforts are not as you wished, you will know right away and can simply re-use the tape. You don't have the expense of wasted film. In fact, you can re-use the tape again and again.

DISADVANTAGES

Naturally, there are some disadvantages to video:

*You need a power source to charge batteries and power TV equipment. You can't hold the tape up to the sun and scan it to find the part you want to see.

*A good quality Super-8 movie will be much sharper.

*At this time, prints made from video tapes have much poorer quality than prints made from standard transparency or negative film. So if you want to sell photos to the print media, have a scrap book of your adventures sitting on the coffee table, or hang beautiful enlargements on your office wall, you must use a still camera.

*If electronic gadgetry absolutely confounds you, you may find it frustrating. A video camera is a fragile, complex piece of equipment—if you flood it, forget it.

The SEA FEVER



Cruise the Bahamas aboard the largest, fastest and most luxurious U.S. Dive-boat "The Sea Fever" with Captain Tom Guarino.

5 days & 4 nights in 90 feet of air conditioned comfort.

Cruise Cay Sal, Berry Islands and Andros.

SEA FEVER

CATCH IT NOW!

Toll Free 800-44-FEVER

FL 305-531-DIVE

Sea Fever Diving Cruises
P.O. Box 39-8276
Miami Beach, FL 33139

OUT•OPEN•CUT CLOSED

One Handed, In 4 Seconds



CLIPIT™

3½" Blade Serrated 4¾" Closed

MARINER

MARINER comes in a double tooth serrated or straight edge blade. Hand honed stainless steel for marine use. Lasting sharpness, uncommon cutting on rope, leather, etc. Will cut a 5/8" manila line in a single swipe. Easily clips to pocket, rain gear. Opens to lock position. A state of the art classic. You won't be disappointed! Specify right- or left-handed. Choose from five models at your cutlery dealer or write today. The best pays for itself! U.S. and Foreign Patents.

Thumb Opening Wrist Opening



Spyderco, Inc.

Dept. SD 187 P.O. Box 800 Golden, Co. 80402

DIVING MEDICINE

(Continued from Page 22)

lus to traverse the Arctic Ocean under the polar ice and literally cross the top of the world underwater.

The difference between the habitat and the submarine is more than mobility. The submarine has a pressure hull that protects the crew from the high pressures of the deep ocean. This allows them to work for extended periods of time at great depths without concern for decompression sickness, inert gas narcosis or any of the other problems of chronic exposure to a high pressure environment.

Among the problems encountered in submarine environments is maintaining clean air. This requires removal of carbon dioxide, carbon monoxide, volatile solvent vapors, cigarette smoke, cooking fumes and many other contaminants that might enter the air.

The submarines that assisted in the recovery of the *Challenger* and the finding of the *Titanic* were small. They carry a crew of only two or three persons, but must have the same life support functions built into them as those found on larger subs. The pressure inside a submersible is, again, one atmosphere. The submersible *Alvin*, which surveyed the *Titanic*, was at depths of 12,000-13,000 feet when it released the small robot Jason, Jr. to photograph the inside of the ship. *Alvin* was surrounded by a pressure of more than 5,000 pounds per square inch.

The submersible that helped with the *Challenger* recovery was the Johnson *Sea-Link*. This small submarine usually carries two passengers and is unique in having the pressure hull made of clear acrylic plastic. The full field of view makes the *Sea-Link* especially good at performing visual searches in waters where the visibility is good, such as the Atlantic coastal zone of Florida.

Single person, one atmosphere suits are also being used for deepsea exploration. The prototype suit, called JIM after its inventor, allows one person to move freely on the seafloor. Like all other submarines, JIM has a pressure hull and a life support system. Its working time is somewhat less than larger vehicles, but its mobility allows a single person to perform useful tasks to depths of 1,500 feet.

Newer submersibles are being developed that use the acrylic sphere for extended visibility and are designed to be "flown" underwater much like a small airplane. These vehicles show promise of opening up the deepsea regions to further exploration and visits by sport and scientific diver-submariners. The future of deepsea exploration will depend much on these newer small, mobile submarines. When they arrive in quantity, all of us will have an opportunity to visit the deep ocean in a one atmosphere, shirt

WHERE TO GO



VISA MasterCard

Low cost advertising that will increase your profits! For info call 213/854-2700. To place your order call toll-free 800/231-4053 (outside CA, U.S. only). VISA/MC

THE BEST OF BELIZE



Unlimited diving on Belize's greatest Reefs from 75 foot *Isla Mia*. Lighthouse Reef, Blue Hole, fabulous dropoffs.
Supercharters for dive stores available.

1966 TWENTY YEARS OF SERVICE TO DIVERS 1986

See & Sea
TRAVEL SERVICE, INC.
50 FRANCISCO ST./STE. 205
SAN FRANCISCO, CA 94133
TELEPHONE (415) 434-3400
TELEX 278036 SEAS UR

SOUTHERN CROSS CLUB
LITTLE CAYMAN

Rated by "Undercurrent" as the Caribbean's best diving.

Little Cayman's tranquil island hideaway.
- Private cottages on a blue lagoon
- Personal service (10 divers maximum)
- Spectacular wall dives
- World class Marlin and Bone fishing

For information: **SOUTHERN CROSS CLUB**
1005 E. Tower, One Merchants Plaza
Indianapolis, Indiana 46204
(317) 636-9501

Reef Runner Honduras Bay Islands

43′ Live-aboard Yacht

Air conditioned & compressor equipped for 8 divers Week-long charters or Surf 'n Turf combo. Groups and individuals

1-800-282-8932 FL (904) 588-4131
P.O. Box 877, San Antonio, FL 34266

Scuba Easy

Check the DIVERS DIRECTORY in the back of this magazine

sleeve environment. One of these can be found at present in Grand Cayman, where you can visit the deep reefs in a true submersible. Such is the future of our diving world.

WRECK FACTS

(Continued from Page 32)

examination topside. Great Lakes divers are hoping the *Sea Link* might discover some virgin shipwrecks in both Superior and Huron.

One of the hottest items off the press for the new year is the Seafarers Journal of Maritime Heritage. Research, undersea adventure and the latest shipwreck discoveries are part of this captivating new journal on wreck diving. Articles by popular authors describe wrecks of the *Whydah*, *Atocha*, *Henrietta Marie*, *Jacob Jones*, *San Diego*, *Debraak*, *Conception* and others. Seafarers is the official journal of the Atlantic Alliance for Maritime Heritage Conservation, a non-profit organization dedicated to conservation of maritime history, and protector of divers' rights to continue exploring shipwrecks in American waters. You may order the Seafarers Journal from P.O. Box 1528, Key West, FL 33041. The price is $17 softcover, $28.50 hardcover edition.

Treasure buffs are praising Phil Trupp's new book, *Tracking Treasure*, a 256 page paperback that portrays romance and fortune U/W and how to find it. Trupp, an author and adventurer who has dived all the sites he writes about, captures the true grit of treasure hunters and the lure that keeps them going despite insurmountable odds. Chapters on How to Get Started and Your Personal Treasure Profile suggest ways sport divers can get involved if they want to enter the world Mel Fisher made famous. Near the end of the book, Trupp invites divers to join in five actual treasure hunts in Key West, Aruba, Bonaire, Curacao and Cayman Brac. Maps, clues and prizes are all part of the culmination of a treasure book that not only tells you how to do it, but offers opportunities to discover the real trove for yourself. *Tracking Treasure* is available from Acropolis Books, Colorton Building, 2400 17th St. NW, Washington, D.C. 20009. The paperback is $9.95; the hardback, $18.95.

Jim Meuninck's new book answers many questions divers have asked me for years. *Diving Opportunities for Fun and Profit* lists more than 100 ways to make money diving. Meuninck covers everything from harvesting freshwater mussels in the Mississippi to cleaning boat hulls and salvaging golf balls. The 216 page paperback may be purchased from Val Martin, Florida Classics Library, P.O. Box 1655, Port Salerno, Florida 33492. The price is $9.95.

Safe diving to all. Be sure to include a stamped, self-addressed envelope when writing to: Ellsworth Boyd, 1120 Bernoudy Rd., White Hall, MD 21161.



INTRODUCING THE

A M/S AQUANAUT EXPLORER

Imagine diving in the crystal clear waters of the British Virgin Islands — right off the boat you're living on. We should rather say OFF THE SHIP! The **Aquanaut Explorer** is 165 ft long, 38 ft wide and has 6000 square ft of deck space, open air restaurant, bar, dive shop, photo lab, gift shop and an air conditioned dining room. All that for no more than 44 passengers. All staterooms are cruiseship size, air conditioned and have private bathrooms. All of the staterooms have windows! Some even have sliding glass doors and private balconies. We have TV-movies, underwater video, slide shows, music and dancing on board. We also have radio telephone for you to call home if you want to.
Dive cruises are seven days and sail every Saturday. All the tanks and weights are right where you need them — nothing to carry around. When you are not diving you can explore the nearby beaches and islands. Beginners can be certified in one week for just $50.00. Resort courses are only $25.00 and best of all for our inaugural celebration we will only charge

$499.00*

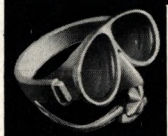
Per Person Double Occupancy.

* THE ONLY CONDITION IS THAT YOU MAKE YOUR RESERVATION AND PAY IN FULL BEFORE JANUARY 15, 1987.

FOR RESERVATIONS OR MORE INFORMATION CALL

1-800-327-8223 IN FLORIDA 1-800-432-8894

SCUBA RING



Unique Gift for Divers
Hand finished/Excellent Details
STERLING SILVER $49.95
Deep Blue Vitrified ENAMEL on Lens
Money back guarantee/6 wks. del.
POSTAGE and INSURANCE included.
Send CHECK or M.O. with Ring Size to:
UNIQUE JEWELRY DESIGNS • Box 81506 • Cleveland, OH 44181-0506

LARGE DIVING YACHT

Chartering three years in Caribbean's best/hottest diving destination. Established, profitable, excellent tax advantage. Investor wanted, working partner considered. Also, yacht cabinetmaker/refinisher as working partner needed.
Lester Netherton (713) 999-1464

DIVE! DIVE! DIVE!
GRAND CAYMAN

- Air Only from $369
- Packages from $799
- Non-stop from Boston on Saturdays
- R/T Air via Cayman Airways
- January through May 1987
- Convenient Weekly Departures
- Choose from 3 Fabulous Hotels



Classic® Tours TM By ITS

For Reservations or More Information, Call Your Travel Agent or Classic Tours at 1-800-225-5432



Subatec's S100

A Swiss Import With Special Features

TEXT AND PHOTOGRAPHY BY GERI MURPHY

While Subatec may be a new name to American underwater photographers, it is well known among Europeans. In Lausanne, Switzerland, this company has been in business 14 years, specializing in the manufacture of underwater strobes, movie lights, video and professional diving lights.

The S100 is just one of four different strobe models. This Swiss import offers some special features that may be just what you are looking for. This model is a big gun strobe packaged in a compact case. It has a power rating of 150 watt/seconds and a wide angle coverage of 96 degrees. It is right up there with most of the heavy duty American built strobes.

The Subatec case is constructed of heavy duty aluminum with a gold anodized finish both inside and out. Cylindrical in shape, this case is 3.5 inches in diameter and 6.12 inches long. It is a tough little package rated to a depth of 500 feet. The S100 has high quality craftsmanship with fine tooling and professional design.

The S100 is a rechargeable unit, powered by five C-cell nickel cadmium batteries. The neat thing about this strobe is the rechargeable batteries can be removed and replaced by alkaline batteries should the unit flood or should you be in a remote area where charging is not possible. These Swiss think of everything.

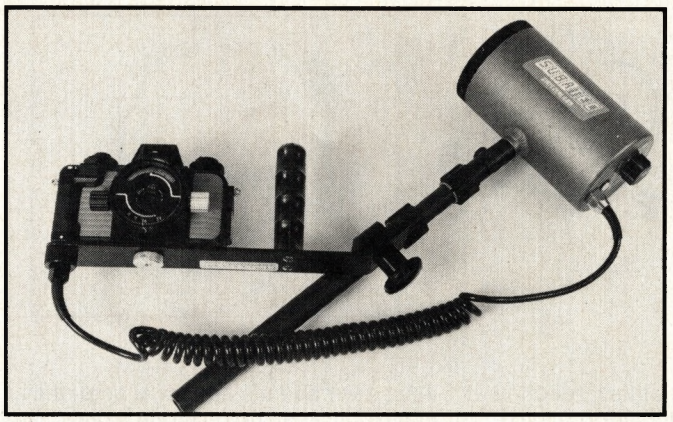
The front of the strobe features a 3.25 inch diameter flash reflector and a circular flash tube. The circular tube is designed to give a more even distribution of light. A dome port helps achieve the extreme wide angle coverage.

The S100 is a standard manual exposure control strobe, which means that it is non TTL. This model is specifically for those U/W photographers who are not interested in automatic strobes. Subatec, however, does build a TTL version—called the S200—but that's another story.

We began this report by hinting that

SUBATEC S100 STROBE

Power output	150 watt/seconds
Power source	5 C-cell nickel cadmium rechargeable batteries
Power modes	Full power, ½, ¼, ⅛
Number of flashes	150/full power 500/⅛ power
Recycle time	4 seconds/full power 1 second/⅛ power
Ready light	Red LED/magnifier port
Charging time	8-9 hrs./wall charger 10 hrs./solar charger
Angle of coverage	96 degrees
Flash tube	Circular
Color temperature	4,500° Kelvin
Flash modes	2/with or w/o focus light
Focus light	Mounted in center of flash reflector
Light duration	Up to 75 min. w/10 watt bulb Up to 35 min. w/20 watt bulb
Sync cord	Nikonos V type/non-TTL Will also fit Nikonos III & IV-A
Slave mode	Optional slave sensor adapter screws onto end of Nikonos sync cord
Depth	Tested to 500 feet.
Weight	2.75 lbs. in air 8 ounces underwater
Flash arm	2 types available Telescoping straight arm 3 jointed modular arm





There are two flash arms for the Subatec S100. The most popular model is a straight arm that can be telescoped to about four feet and can be removed from the camera tray. The S100's charging receptacle is accessed by removing the flash port.

this Subatec strobe has some unique features, and that is a fact. The first noteworthy feature is the color temperature output. It is rated for 4,500° Kelvin, which is exceptionally warm. Most underwater electronic flash units are rated between 5,400 and 5,700° Kelvin, so you can see there is a big difference. This warm color temperature helps to produce richer reds and oranges and much warmer flesh tones, even when photographing divers four to five feet away.

Another major feature of the S100 is its multi-power modes. There are four of them: full, one-half, one-quarter and one-eighth. Each power setting is one f/stop less than the previous one, thus giving you a full four f/stop range of lighting control. It is the kind of feature for which professional photographers lust!

Impressed? Well, there is more. You can have all four power modes with or without a focusing light. And, all of this control is built into one rotary switch on the back of the strobe. By turning this clockwise you obtain any desired power mode without the modeling light. However, if you turn the switch counterclockwise you get both the modeling light and the desired power mode. This is the only control switch on the entire strobe.

One additional note on the modeling light. It is a flood lamp rather than a spotlight. Also, two bulbs can be used; a 10 watt or a more powerful 20 watt. Running time with the 10 watt bulb can be up to 75 minutes and the brighter bulb lasts about one-half that time. The modeling light is in the center of the flash reflector, thus giving you an accurate representation of the flash's area of coverage.

While we are on the subject of power modes we might also mention the S100 has a very quick recycle time. On full power it will recycle in four seconds and at one-eighth power it recycles in one second. The ready light is a bright red LED with a magnifier port, just below the power mode switch.

As for number of flashes, the S100 is impressive. At full power it will deliver 150 flashes, which is approximately four rolls of 36 exposure film. That is not bad for a compact strobe. At one-eighth power the output increases to 500 flashes.

One more amazing feature of this strobe is the wide variety of charging units available. The S100 comes standard with an international charger that will operate on either 110 or 220 volts; either 50 or 60 cycles and 12 volt DC. It will work anywhere in the world. Charging time is eight to nine hours. There is also a 12 volt cigarette lighter adapter available as an accessory for $16. Charging time is approximately the same as it is with the wall unit.

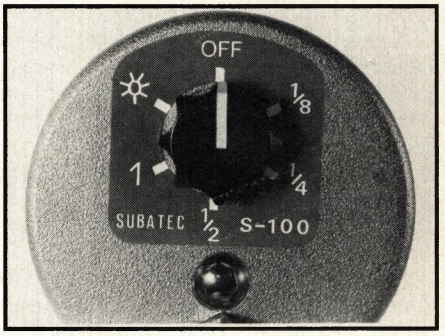
The charger that really swept me off my feet is a solar panel that operates off sunlight. This will fully charge the batteries in 10 hours. It is an optional accessory that sells for approximately $175.

There are two flash arm and camera tray choices available for use with the S100. The modular version is a four jointed tubular arm that sells for $175. My favorite, however, is a straight telescopic arm that sells for $125. It is a little more compact and the arm can be removed from the camera tray.

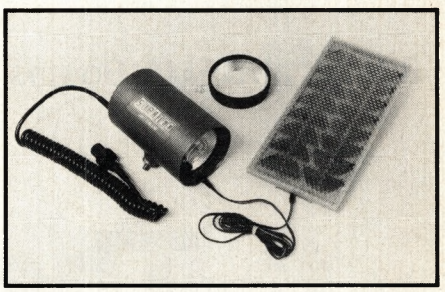
One more interesting option is a slave sensor adapter that will convert the S100 into a slave unit. This adapter screws onto the Nikonos end of the sync cord, thus converting it from a manual firing strobe to a slave only unit. The sensor adapter sells for $89.

Subatec's S100 may not be for everyone, as this is not an inexpensive unit. It is a highly professional strobe with a number of very unique and specialized features. The strobe, with standard charger, sells for $775.

Subatec products are imported and distributed by Akimbo, Inc. You can obtain more information or place your order by contacting: Claude Martin, Akimbo, Inc., 1435 Estrella Drive, Santa Barbara, CA 93110 or telephone (805) 682-7161.



The S100 offers a selection of four flash powers. Each can be used with or without the focusing light. There is one f/stop difference between each power setting.



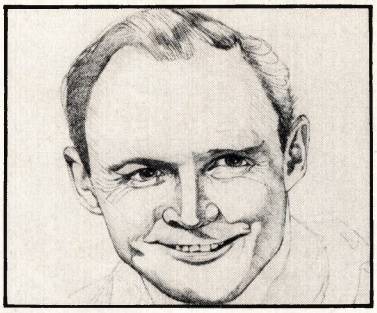
Subatec also manufactures a unique charging panel that converts the sun's rays into electrical energy. It can fully charge the strobe batteries in ten hours.



An optional adapter is also available that converts the S100 to slave-only operation. The adapter attaches to the sync cord where it normally connects to the camera.

Technifacts

BY E.R. CROSS



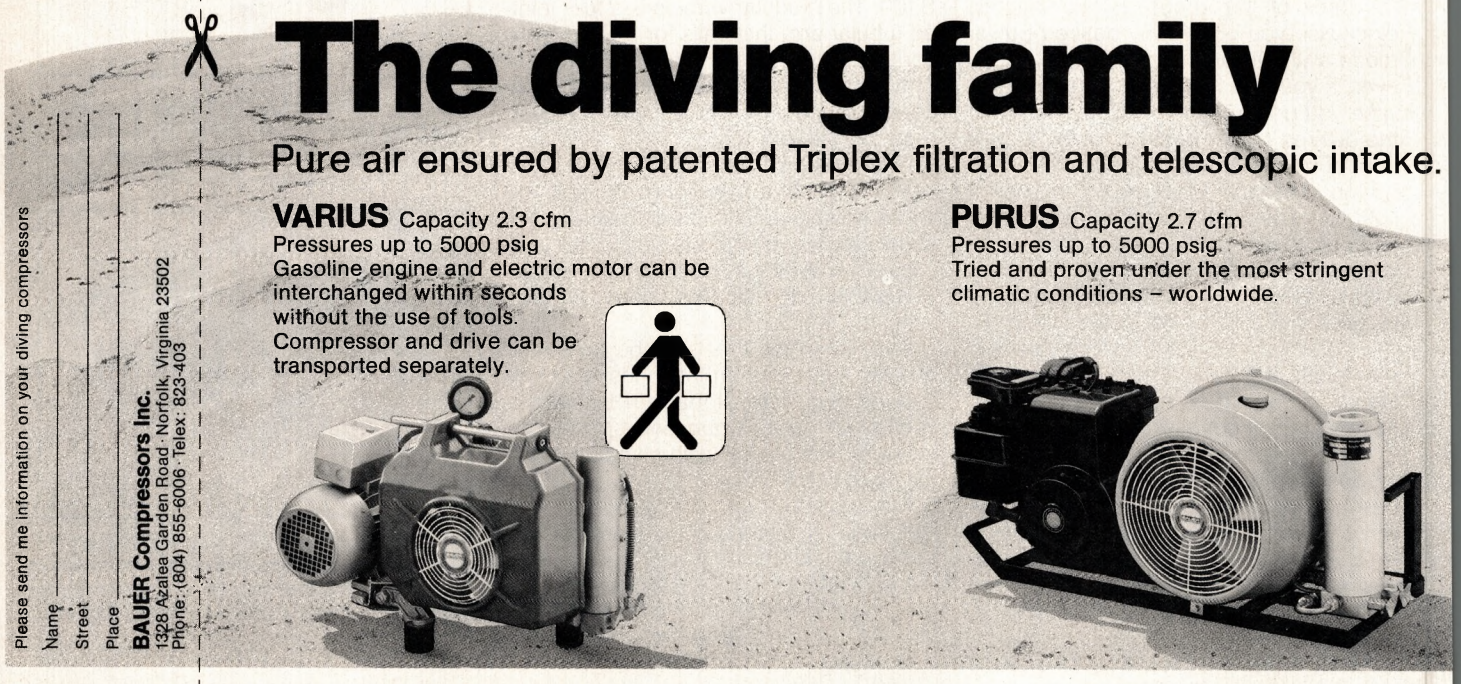
In the past, scientists had to grope blindly into the depths with instruments at the ends of long lines. This kind of "research" has been compared with studying life on earth from an airship hovering above a dense cloud cover and lowering baskets, nets, grapnels or remotely operated instruments to the surface.

A few U/W researchers were able to observe life *in situ* by peering out of small portholes in cramped steel bells, slung from restricting steel wires. Others studied marine life as best they could while floating on the surface and peering down into the water for a few meters. In spite of these restrictions, some excellent, although limited, findings were made.

In the 1950s ocean research began to change. Sport diving equipment and techniques were adapted to use by marine scientists. Underwater photography and television capabilities reached a point they could contribute to a project. Knowledge of diving physiology permitted excursions into deeper water for longer periods. Remotely controlled instruments permitted still greater penetration of the marine world. But, researchers could remain submerged for such a short time they could take only a quick look or a short series of photographs or video recordings. Then came saturation diving from submerged habitats.

The National Oceanic and Atmospheric Administration (NOAA) *Diving Manual* states, "Saturation is a term denoting a state in which the diver's tissues have absorbed all the nitrogen or other inert gas they can hold at that particular depth. Once saturation has occurred, the amount of decompression time required at the end of the dive does not increase if the diver spends additional time at that depth." In a saturation mode a diver usually works out of a habitat the atmosphere of which is maintained at a pressure nearly equal to the ambient water pressure. Again, from the NOAA *Diving Manual*: "The term *habitat* is usually applied to a pressure or ambient pressure vessel placed on the floor of the ocean that provides support, comfort and the base of operations for the divers and support equipment." The use of a habitat for life support for the conduct of saturation diving permits almost unlimited time at depth with only one, usually long, decompression schedule at the end of the dive. Because of this one ascent mode of decompression following several days of saturation, the risk of decompression sickness is greatly reduced when compared to the many repetitive dives that would be re-

See us at DEMA Booths 1701 and 1703



quired to attain the same number of hours of underwater work.

In addition, by using saturation diving equipment and techniques, the scientists can study the marine world 24 hours per day for weeks and sometimes longer. Limited excursions into either deeper or shallower water can be made without some of the physiological problems encountered in conventional diving. With proper planning and conduct of a mission, scientists and their habitat can become part of the marine environment. They are no longer intruders.

In 1985, marine scientist Laurie Sanderson wrote, "At this very moment, I am sitting in the underwater habitat Hydrolab. I've been working here with three other scientists for a week. We are now in the ninth hour of a 16 hour decompression schedule following our seven days of saturation diving at a depth of 50 feet." Sanderson was part of a team of four, including the principal investigator, Dr. Kenneth P. Sebens, director of the Marine Science and Maritime Studies Center at Northeastern University, Boston, Massachussetts. The other scientists working from the underwater habitat were Dr. Richard Aronson and Dr. Mark Patterson.

The principal mission of the Hydrolab crew was to study the effects of water flow on coral respiration and productivity; the kind of study that required 24 hours per day observation and instrumentation. Such a project could best be conducted from a saturation system in which divers could be fed and housed in reasonable comfort for extended periods of time. According to Sanderson, "During our seven days of research U/W, we accomplished the equivalent of one year or more of surface-based diver research activities."

In addition to the principal research project of Drs. Sebens and Patterson, Dr. Aronson and Sanderson made observations on the foraging relationships between yellowhead wrasses and goatfish. "It appears that yellowhead wrasses, which usually eat invertebrates off rocky surfaces, follow goatfish to sand patches where the wrasses feed on different species of invertebrates that are exposed as the goatfish excavate." Sanderson added, "This behavior makes an extra category of food resources available."

Sanderson's interest in the marine world began at the age of six or seven when she became fascinated with seashells while living in Hawaii. Her diving career began in the mid-1970s. Again, her primary interest was seashells. It wasn't long, however, until other marine sciences attracted her. She finally settled on a career in marine biology and received a master's in biology from Harvard in 1984. She expects to complete her Ph.D. thesis research in 1987. She told me, "For my thesis I am studying the anatomy and functioning of fish jaws and how this relates to the fish's choice of food." She selected Hawaiian fishes for her study because she had spent so much time observing them in the field. Also, "I've been keeping Hawaiian fishes in aquariums in the lab at Boston where I've been using very fine wire electrodes connected to instruments to determine which muscles are used during feeding."

Sanderson's comment, "Underwater habitats are such wonderful research facilities," reflects the opinion many marine scientists have had for more than 20 years. The concept of saturation diving in a dry habitat is neither new nor limited to marine science. Dr. Albert Behnke suggested, in a report in 1942 (Effects of High Pressure; Prevention and Treatment of Compressed Air Illness) that, "It would appear advisable to keep men at work on a job continuously under pressure."

Some saturation dry dives were made as early as 1945 in chambers to test certain aspects of decompression tables. The late Dr. George Bond (Captain, Medical Corps, U.S. Navy) suggested, in 1957, that saturation diving would increase diver safety and capability. But, it was not until 1962 that actual saturation diving from a dry habitat began in the open sea.

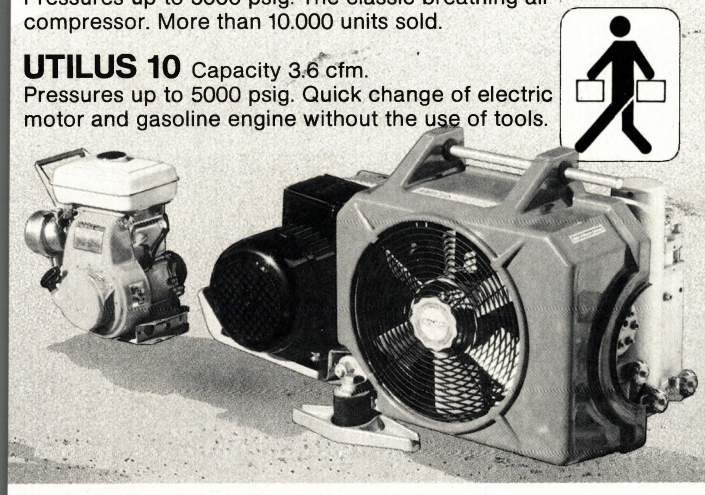
From 1962, when Bond conducted the first experiments in saturation diving, to 1978, a total of 15 nations had carried out saturation diving programs, some from

from BAUER

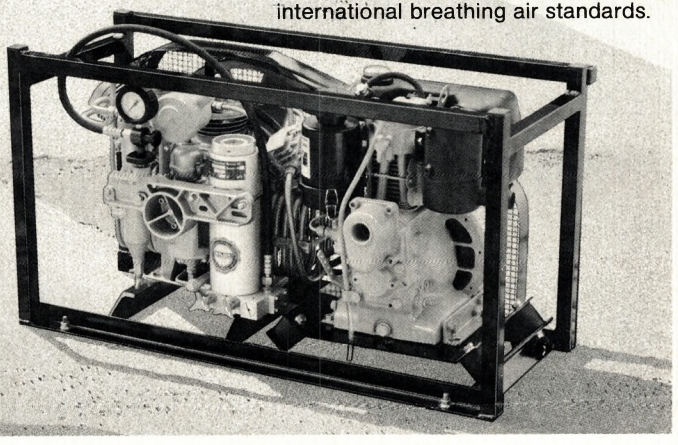
BAUER COMPRESSORS

UTILUS Capacity 3.6 cfm.
Pressures up to 5000 psig. The classic breathing air compressor. More than 10.000 units sold.

UTILUS 10 Capacity 3.6 cfm.
Pressures up to 5000 psig. Quick change of electric motor and gasoline engine without the use of tools.



CAPITANO/MARINER Capacity 5/7 cfm
Pressures up to 5000 psig. Available with gasoline, electric or diesel drive. As with all other models, purification system meets all international breathing air standards.



UNDERWATER COMMUNICATIONS



- Now everyone can share the excitement of Scuba Diving with our *clear* underwater communications.
- The systems used by: The Cousteau Dive Team, U.S. Navy, U.S. Army Special Forces, Epcot Center, etc.
- Dealer inquiries invited.

Ocean Technology Systems
2610 Croddy Way, Unit H
Santa Ana, CA 92704
(714) 754-7848 TELEX: 262189 OTS UR

See Us at DEMA Booth 655 & 657

TECHNIFACTS

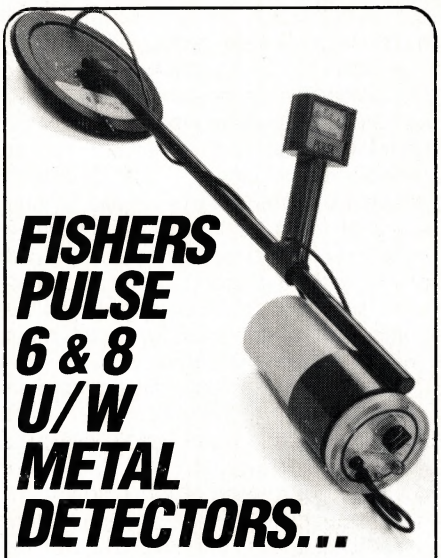
land-based facilities and some from submerged saturation habitats. Saturation depths for these programs ranged from 26 to 2,000 feet. Originally, both the commercial diving industry and the U.S. Navy devoted a considerable amount of their research and tests on deep (500 to 2,000 fsw) saturation diving. Both, but particularly the commercial diving industry, are now thinking in terms of saturation dives from 200 feet and deeper. NOAA, on the other hand, concentrated its efforts in saturation diving at depths ranging from 40 to 300 fsw.

Built in 1966, Hydrolab was not the first saturation dive system, but it was the first system constructed specifically for ocean research programs. Only one year after Bond's chamber saturation tests with animals and, eventually, humans, inventor Edwin Link developed and tested his saturation diving cylinder. Link himself was the first diver to use his saturation system. In August 1962 Link made a dive that lasted eight hours at a depth of 60 feet. But, it was diver Bob Stenuit, working with Link, who became the first "aquanaut," a person who remained underwater for longer than 12 hours to become completely saturated. During his saturation dive at a depth of 200 feet, Stenuit made excursion dives to both shallower and deeper depths.

Then came Conshelf I in 1962 and Conshelf II in 1963, both French efforts. Link's ambitious Man-in-the-Sea II saturation dive to 400 feet was made in 1964. These efforts were followed quickly by the U.S. Navy with its Sealab I tests, also in 1964, and Sealab II in 1965. Conshelf III and Sealab III were also completed in 1965. Commercial diving companies began developing systems that culminated in saturation dives to 135 and 205 feet in Smith Mountain Dam in Virginia.

One of the advantages of Hydrolab was that it was simply designed and easy and inexpensive to operate. The principal structure was a 16 x 8 foot cylindrical chamber. It was first developed in 1966 by Perry Submarine Builders, Inc., in consultation with Edwin Link and Florida Atlantic University, who eventually became owners and operators of the unit. Following some operational difficulties, the habitat was modified in 1967 to nearly its present configuration. After a complete refurbishing in 1970, Hydrolab was moved to Grand Bahama Island where it was used for seven saturation dive schedules in 1971. In the period from 1972, well into 1975, NOAA supported nearly 100 missions based in Hydrolab.

An unattended, self contained life support, twin-hulled barge floats at the surface near the Hydrolab. All life support, including electrical power, high and low



FISHERS PULSE 6 & 8 U/W METAL DETECTORS...

the top price performers on the market today

• Complete line of underwater metal detectors • Hand-held models • Boat towed (Magnetometers also available) • Used the world over—the divers choice for 20 yrs. • Two year warranty • Purchased by the Navy, Coast Guard and FBI • Engineered for disassembly without warranty loss

For technical and price information write for our free catalog.

J.W. FISHERS MFG. CO.
ANTHONY ST. TAUNTON, MASS. 02780
(617) 822-7330 CALL COLLECT FOR INFO.

SPARE AIR STANDARD EQUIPMENT

When you get ready for that next dive, be sure to include **SPARE AIR** on your check list. This outstanding addition to your equipment package is as vital to you as your air tank regulator and your Dive Buddy.



SPARE AIR is designed and engineered *by divers — for divers.*

SPARE AIR is a self-contained air supply with over 30 breaths of **extra** air.

It's more than just another option, it's a **breakthrough** in dive technology.

For more information, write or call:

Submersible Systems
18112 Gothard St.
Huntington Beach, CA 92647
(714) 842-6566

pressure air, and water is supplied to the aquanauts through an appropriate tube. Decompression is conducted within the habitat when the dive program is done.

NOAA purchased Hydrolab in late 1977 and, following major refurbishing, moved the system to the West Indies Laboratory, Fairleigh Dickinson University, St. Croix, U.S. Virgin Islands, where it remained operational until its decomissioning in 1985. According to NOAA, "Hydrolab was the world's only scientific saturation diving habitat." This unique undersea dwelling was in the apex of a submarine canyon on St. Croix's north shore at a depth of 50 feet. By utilizing saturation diving, teams of four aquanauts could spend up to two weeks living U/W.

Certainly the principal advantage of saturation diving is the dramatic increase in underwater working time. For example, a diver working from the surface is limited to 100 minutes at 50 feet on an initial dive while a Hydrolab aquanaut can work as long as necessary at this depth without decompression, provided he/she returns to the habitat.

Another distinct advantage is excursion dives to greater or lesser depths can be made without decompression, again provided the aquanaut stays within certain limits and returns to the habitat without surfacing. In her letter, Sanderson explained, "We have been able to spend three to five hours per day scuba diving with excursions as deep as 150 feet." Surface support crews provided twin aluminum 80 cubic foot dive cylinders for their ventures away from the habitat. Comparable diving from the surface would require hours of decompression time and a considerable risk of decompression sickness.

One feature of Hydrolab is best described by Sanderson. "We have a lovely three foot diameter porthole at one end of the habitat and it provides hours of enjoyment. It is like watching an aquarium in which someone is always changing the fish population." As an afterthought, she wrote, "Actually, I believe *we* are on display and the fish keep swimming past us out of curiosity." She also remarked, "One of the four of us must be awake and on watch at all times to monitor the compressed air, instruments and to maintain radio contact (through the umbilical and the surface barge) with the onshore base. On one of my first morning watches I saw my first U/W sunrise—impressive!"

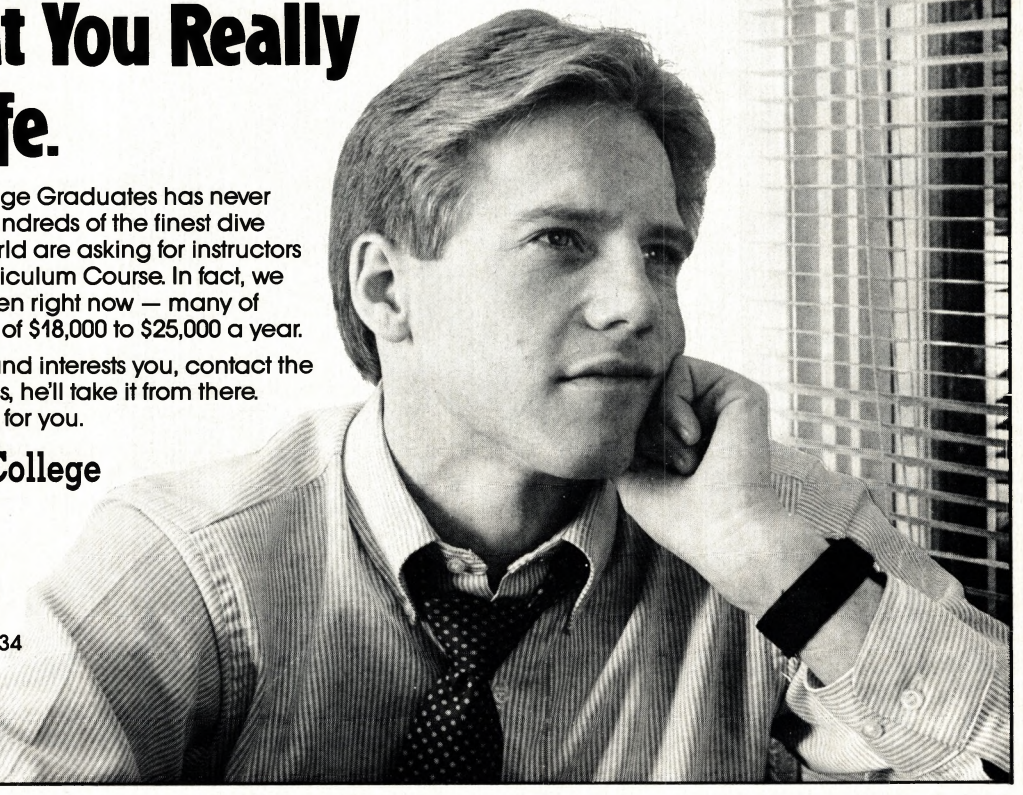
For the first time ever, a personal computer was installed in a habitat and connected directly to instruments in the test area. Dr. Mark Patterson designed and built the system for this research project. An Apple IIe microcomputer with appropriate interfaces was installed in Hydrolab. A Planar solid state electroluminescent screen was used instead of the conventional screen. The electroluminescent screen was used because of danger of a conventional monitor with a picture tube (similar to a regular TV tube) imploding from the pressure in the habitat.

What were living conditions like in Hydrolab? Sanderson said, "Hydrolab lacked any restroom facilities—quite a drawback! This will be remedied in the new habitat. A hookah was available for the inevitable trips outside for what the Hydrolab staff refer to as 'physiological housekeeping.' Freshwater showers were taken over the open hatch into the sea. Meals were brought to us daily in pots (modified paint sprayers that could be pressurized) in sealed plastic bags. A small hot plate was provided in the habitat and we warmed the food in boiling water." She later admitted, "I feel I'm only giving you a glimpse of the rather complex operation of the habitat."

Candidates for the use of Hydrolab spend three days studying the 71 page Hydrolab *Operations Manual* and in assimilating information concerning the habitat facility, its operational procedures and the physical environment in which it is located. "Research programs are operated with military precision and, fortunately, a sense of good natured humor," Sanderson wrote. Underwater areas are carefully delineated on the ocean bottom and divers must know precisely where they can go and what areas are off limits as well as where the emergency facilities are and how to use them. And, they must follow the rules for safe diving. Hydrolab

(Continued on Page 145)

There's Never Been a Better Time to Do What You Really Want in Life.



The demand for PADI College Graduates has never been greater than *now*. Hundreds of the finest dive stores and resorts in the world are asking for instructors from our famous Gold Curriculum Course. In fact, we have over 283 positions open right now — many of these offer starting salaries of $18,000 to $25,000 a year.

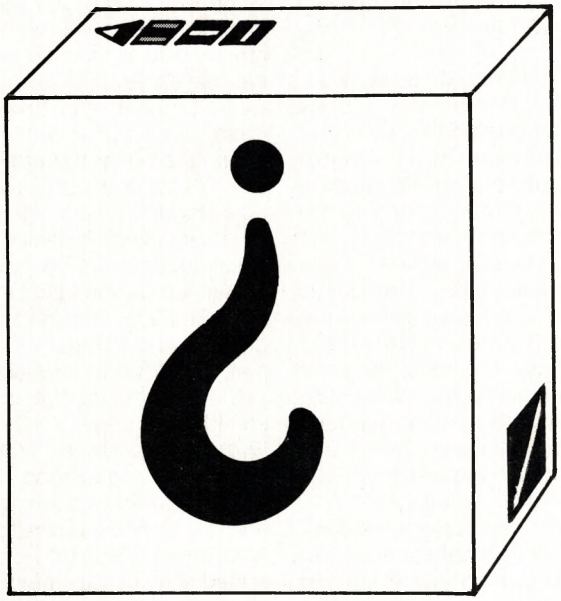
If being this much in demand interests you, contact the College Dean, Jim Williams, he'll take it from there. Remember, they're waiting for you.

PADI International College
1243 East Warner Avenue
Santa Ana, CA 92705

Call toll free:
Inside U.S.: (800) 235-3434;
Inside CA: (800) 223-8697
Outside U.S., call: (714) 540-7234
Telex: 678400 PADI INT SNA

If writing, include age, address and phone number.

What are the niggles?



See us at booth 1663
At DEMA, or call 1-800-654-8786

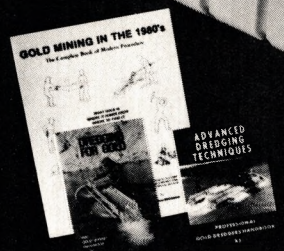
©1986Trivial Narcosis TX 409-830-7106

GOLD! TREASURE!

Make your hobby pay off. From panning to dredging to metal detection, gold is a thrill to find. Let us show you how to mix profit with your diving fun. Send for our free catalog.

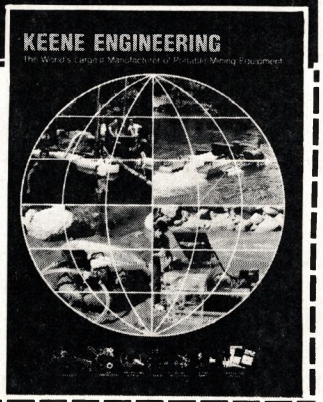


5" Surface Dredge
Model 5538



3 GREAT BOOKS
Making your mining more productive — "Dredging for Gold" for beginners. "Advanced Dredging Techniques" — for the experienced.

FREE CATALOG
A gold mine of sluices, pumps, dredges, tools, diving equipment, books and detectors. Send for your FREE copy.



KEENE ENGINEERING, INC. SD
9330 Corbin Ave., Northridge, CA 91324 • (818) 993-0411

- ☐ Please send FREE CATALOG
- ☐ "Dredging For Gold." $7.95 (CA residents add 52¢ tax)
- ☐ "Advanced Dredging Techniques." $7.95 (CA residents add 52¢ tax)
- ☐ "Gold Mining in the 1980's." $15.95 (CA residents add $1.04 tax)

Print Name_____

Address_____

City_____ State_____ Zip_____

ICE WRESTLERS

Thrills and Chills Canadian Style

TEXT AND PHOTOGRAPHY BY HARRY A. STEARNES

If you missed dipping yourself in 31°F waters for the 23rd Annual Ice Floe Race down the treacherous Trent Canal near Peterborough, Ontario, Canada, you missed the greatest diving event on the North American continent.

Perhaps challenged only by white water runs for thrills and chills, last year's two mile race was sponsored by the Trident Underwater Club of Peterborough. It was attended by 628 divers from the Midwest and Canada.

Teams of 10-20 men and women wrestled 16 foot floes nearly two feet thick



Divers and friends at the Ice Floe Race.

across the swift currents of the canal system of the Otonabee River toward a finish line a few yards short of a dam. The trick was to place first in the timed event without being crushed or swept under the ice that jutted out from shore.

Thousands of spectators—who arrived in campers, trucks, cars and motorhomes—lined the course.

Coordinated by John and Heather Caldwell, members of Peterborough's Trident Dive Club, the two days of carnival-like activity included a costume ball Saturday night. This drew more than 1,000 revelers, some dressed as Vikings in horned helmets and bearskin robes. Others included clowns, nightclub acts in tights and top hats, hunters, Indians, etc. The Toronto vice squad arrived in drag, complete with long black hose, garter belts and voluptuous bosoms.

The presentation party, following the Sunday race, was a duplication of the previous night's celebration. A highlight of the party was the exchange of club buttons and T-shirts.

Thirty-six clubs from Michigan, Ohio, Pennsylvania and Canada participated in the race. The heavy fog covering the Mid-

west during the weekend reduced the anticipated attendance of many teams from Illinois, Ohio, Michigan and other Great Lakes states.

For the statisticians, the race was won in the record time of 20.46 minutes by the Canadian Sub Aqua Club of Toronto. The Port Maitland Divers followed with a time of 28.22 minutes and the friendly Metropol cops of Toronto were third with 29.7 minutes. Slowest and coldest was the Ontario Underwater Club, timed at one hour and two minutes.

American clubs were in the top third with the Wreck Shooters of Mt. Clemens, Michigan, timed at 32.22 minutes followed by the Ford Sealancers of Northville, MI, 32.28 minutes; Bruno's Dive Club of Mt. Clemens, 33.41 minutes; Aqua Amigos of Cleveland, Ohio, 32.24 minutes; North Coast Divers of Lakewood, Ohio, 36.44 minutes; Tri State Divers of Mars, PA, 40.27 minutes; and the Pittsburgh (Pennsylvania) Explorers, 42.29 minutes.

In addition to trophies awarded to the three fastest teams, the all-female Ottawa Beavers Scuba Club took first place among women's teams with 30.31 minutes. The women, by the way, beat out most of the other squads.

The Pittsburgh Explorers walked off with first place in the costume competition followed by the Super Turtles of Toronto and the Tri State club of Mars, PA.



Michigan's Ford Sealancers paddle to control their ice in the current of the canal. A dam near the finish line made it important to reach shore there as quickly as possible.

Best Participation award went to the Toronto Police; Unique Propulsion, Port Maitland Divers; Best Female Participation, Super Turtles of Toronto; and Best Club, Metropol of Toronto.

Wet and drysuits, diving gear and a motorized underwater sled were among the dozens of prizes given away.

Volunteers from the Trident Club spent Saturday morning with power saws cutting the 20 inch ice into chunks 16 x 12 feet and poking them apart to keep them from refreezing.

"The purpose of the event is to have fun," John Caldwell explained when it was noted that some floes were larger than others. "We measure them by staggering and stumbling."

The course stretches between locks 23 and 24 of the Trent Canal system, joining the Otonabee River. The floes rest in a dead area, remaining intact and out of the

THE COLLEGE

FOR DIVING INSTRUCTORS AND DIVEMASTERS
Personalized Career Counselling and Placement Assistance

NAUI College is growing rapidly by following a simple formula

1. Actively recruiting bright and ambitious students.
2. Providing exacting educational standards.
3. Creating enjoyable, challenging learning opportunities in a variety of formats, geographical settings, and time parameters.
4. Respecting the needs of each individual student through highly personalized educational and career counselling.
5. Constantly encouraging alumni to help build diving as a professionally promoted and taught - safe, fun activity.

NAUI COLLEGE A COMMITMENT TO EDUCATIONAL EXCELLENCE

Please send General and Admissions information.

Name _____

Address _____

City _____ State _____ Zip _____

NAUI National Association of Underwater Instructors College
27402 Camino Capistrano, Suite 103
Laguna Niguel, CA 92677
in CA 714-582-0186 Collect
CA Res. Call Toll Free 1-800-227-6663
Outside CA 1-800-423-7095 Toll Free

MARINER SUITS



TOP QUALITY WETSUITS

YAMAMOTO MATERIAL

Manufacturer
Sam Jung Hwagong Co., Ltd.

ABEK CORP., 1203 Kona Drive
Compton, CA 90220 • **(213) 635-6003**

See full line of Mariner Wetsuits at DEMA booth 661/659

B&H PHOTO
"The Professionals Source"

UNDERWATER PHOTO EQUIP.
ikelite / ewa-marine
UNDERWATER SYSTEMS . . . CALL



NIKONOS V w/35 F2.5	$415.00
Original Nikonos Case	29.95
NEW! 15 2.8 w/DF-11 Finder	1,069.00
NEW! 20 2.8 399.00 28 2.8 LW	149.95
28 3.5 UW 219.00 80 4 UW	209.95
SB 102 Outfit w/case	599.95
SB 103 Outfit w/case	299.00
NIKONOS Close-Up Kit w/o case	134.95
Case for Close-Up Kit	29.95

HANIMEX AMPHIBIAN SYSTEM

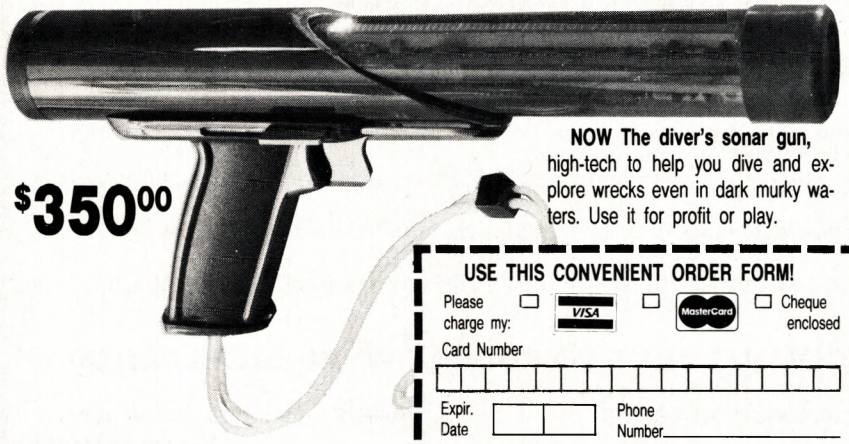
110mm Amphibian	89.95
35mm Amphibian	146.95
Handle Flash for 110 or 35mm	99.95
Wide Angle Lens	87.90
Macro Lens . . . 44.95 Close-up	28.95
Fujica HD-M	159.95
NEW! Canon Aqua Snappy Kit	CALL
Sekonic L164B Meter	99.95
Pelican 1400 12x9x5	47.95
Pelican 1500 17x11x8	66.95
Pelican 1600 22x17x8	114.95
Pelican 1700 50x11x6	139.95

**119 West 17th St.
New York, NY 10011**

MAIL & PHONE ORDERS ACCEPTED. NY residents add sales tax. Fast delivery with certified check or money order. M.C. & VISA users give card no., bank no. & expiration date. Min. handling and shipping up to 3 lbs. $5.50; over 3 lbs. to 50 lbs. send 50¢ for each additional pound. Insurance: add 40¢ per $100. Not responsible for type errors. Prices are valid through January 25.

Open Sun. 10-4 Mon.-Thurs. 9-6 Friday 9-2 Closed Sat. (212) 807-7474 To Order Call Toll Free: 800-221-5662 Canada Toll Free: 800-634-4009. Rush Service & Overnight Express Avail.

SEA SCAN 650



$350.00

NOW The diver's sonar gun, high-tech to help you dive and explore wrecks even in dark murky waters. Use it for profit or play.

USE THIS CONVENIENT ORDER FORM!

Please charge my: ☐ VISA ☐ MasterCard ☐ Cheque enclosed

Card Number

Expir. Date

Phone Number

Signature

Name

Address

City State Zip

HELO ENTERPRISES, INC.
Rd. 3, Box 198, Massena, NY 13662
RR 1, Lunenburg, Ontario, Canada K0C 1R0
(613) 537-2682
Dealer Inquiries
TEL.: (514) 489-4902 • TELEX: 055-66123

ICE FLOE RACE

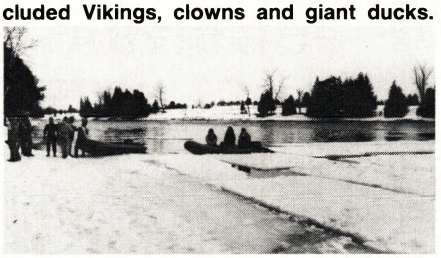
swift current while the clubs turn their individual hunks of ice into floats such as Egyptian slave ships, flags, huge replicas of dive gear, Viking and clown displays. Everything must be removed and ferried to shore at the finish line before reaching the dam site.

Propulsion of the floes is left to the imagination of the teams, but electric motors and gas engines are not allowed.

Referees in boats time the crews as they shove off into the mainstream where



Below: Chunks of ice 16 feet long await the beginning of the race. Above: Divers in costume such as these "rabbits" added color to the event. Other characters included Vikings, clowns and giant ducks.



it becomes a matter of paddling like the devil toward the finish line, marked with a dive flag and hot soup.

The city of Peterborough, a one hour drive northeast of Toronto on Highway 115, meanders along the picturesque river. It has a population of more than 85,000 with a college and air, train and bus depots as well as friendly people.

The 1987 race is scheduled for the third weekend of March and those clubs interested in participating may contact John and Heather Caldwell, General Delivery, Westwood, Ontario, Canada 3B0; telephone (705) 696-2502.

The area also provides a wealth of winter and summer sports including skiing, snowmobiling, canoeing, swimming and camping.

TECHNIFACTS

(Continued from Page 141)

regulations apply to all diving operations conducted from the shore base and/or utilizing Hydrolab equipment. Use of shore based equipment must not interfere with support of the saturated team.

In its 20 year history, Hydrolab played host to more than 150 missions that involved hundreds of aquanauts. In 1985 the unit was retired; it was moved to the Smithsonian Institution's Museum of Natural History in 1986. According to officials, it was the largest manmade object ever moved into the museum. Hydrolab was placed on a platform with rollers and then pushed through the mall doorway from which workers had removed all four entrance doors and posts.

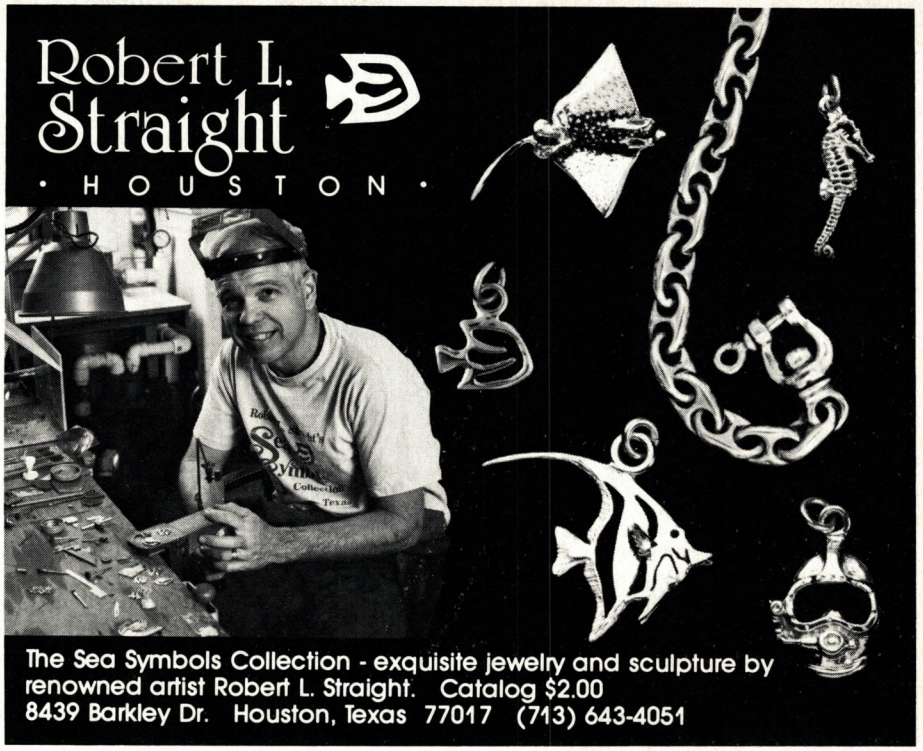
The usefulness of a saturation habitat has been demonstrated many times in military, research and commercial diving endeavors. It seems important to me that habitats be developed for each of the several fields of work, but particularly so in research diving where truly productive work often depends on 24 hour per day observation and instrumentation—a regimen not possible with surface diving.

The original Hydrolab is gone, but NOAA is replacing it with a new, larger unit appropriately named the George F. Bond. In June 1986 the George F. Bond was still in drydock. The system will commence trial operations in Salt River Canyon early this year.

A NOAA brochure states, "NOAA's Undersea Research Program targeted research priorities critical for the understanding, preservation and management of U.S. coastal waters: 1) Primary production and nutrient cycling; 2) Fisheries physiology and harvesting impact; 3) Marine pollution; 4) Seafloor properties and processes; 5) Ocean services such as diving medicine, instruments, archaeology and marine monitoring. Hydrolab facilities have supported research relevant to the Caribbean in these areas."

NOAA's National Undersea Research, West Indies Laboratory, seeks proposals that will address NOAA's stated undersea objectives. Qualified scientists and institutions, including those of Caribbean nations, should address queries to: Science Director, NOAA's National Undersea Research Program, Fairleigh Dickinson University, Teague Bay, Christiansted, St. Croix, U.S. Virgin Islands 00820; telephone (809) 778-1608.

One final comment: In a letter, Bruce B. Nyden, operations manager, NURP-WIL, stated, "The group that Laurie took part in was very productive. They were very professional and were a pleasure to work with." Technifacts congratulates this fine group of young scientists for a job well done.







FAMOUS "SKINDIVER"

CUSTOM WET SUITS

MADE IN U.S.A

NYLON 1 SIDE **61.95** NYLON 2 SIDE **101.95**

(Circle One)

Order direct and SAVE!
Satisfaction guaranteed

Men's or women's custom tailored to your measurements with high pants and collar for super warmth. Finest wet suit material, completely nylon lined. Features sewn seams, noncorrosive zipper and twist locks. 1/4" or 3/16" material — mark your choice below. Just fill in your measurements and mail your order. Quicker delivery with Money Orders/Visa/MasterCard. Checks take 3 weeks to clear.



¼" 3/16"

Sex Age

Height

Weight

_____Ankle
_____Calf
_____Knee
_____Thigh
_____Hips
_____Waist
_____Chest
_____Neck
_____Wrist
_____Forearm
_____Elbow
_____Biceps
_____Ankle to Knee
_____Ankle to Crotch
_____Ankle to Waist
_____Shoulder Seam to Crotch
_____Wrist to Elbow
_____Bra and Cup Size
_____Wrist to Armpit
_____Hat Size

Include MC - VISA Expiration Date _____

☐ GLOVES $12.95 ☐ BOOTS $12.95
☐ HOOD $11.95 ☐ FARMER JOHNS $25.00
☐ ADD $3.00 for Each NYLON 2 Accessory

MEN OVER 225 lbs. AND/OR 6'4" ADD $35.00
MEN OVER 250 lbs. ADD $65.00
WOMEN OVER 175 lbs. AND/OR 5'10" ADD $35.00

$6.00 for Postage/Handling, $8.50 Canada, $15.00 APO/FPO
No C.O.D. WA State add Sales Tax, incl. Postage & Handling
VISA/MasterCard Orders Must Include Expiration Date.
CLIP AND MAIL THIS COUPON TODAY.

Skin Diver Wet Suits
1632 S. 250th
Kent, Washington 98032-5499
Phone: (206) 878-1613

Name _____

Address _____

City State Zip

TILDEN'S PRO DIVE SHOP

Tilden's Pro Dive Shop in Marathon in the Florida Keys is now offering a PDIC instructor training college. The course is designed to take one week, but it is possible to individualize that length of time according to the student's requirements.

The PDIC *Instructor Manual* is a comprehensive guide designed to help instructor candidates present a scuba course. It includes a list of problems divers may encounter, along with the solutions. Graduates will also learn about dive shop procedures, retail sales and techniques, compressor operation and career opportunities.

PDIC is an international training agency. It is the first CMAS-OCC center in the United States. CMAS is the World Underwater Federation, with headquarters in Paris, France.

To become a licensed scuba instructor or for more information please contact: Tilden's Pro Dive Shop, 5074 Overseas Hwy., Marathon, FL 33050; (305) 743-5422.

YELLOWTAIL SNAPPER

(Continued from Page 34)

ple seasonings will provide your already exciting cuisine a finishing touch.

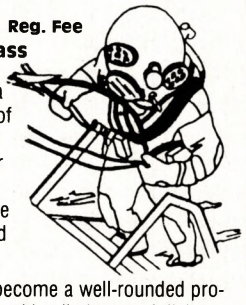
Depending on how you prefer to fry it, either whole or filleted, dressing the fish for the pan is a quick process. When preparing the fish whole, hold it firmly under running water. Position the scaling knife vertical to the fish, drawing it from the tail to the head, scraping the scales as you go. Then cut along the belly from the pelvic fins to the anal fins. Remove and discard the entrails. Next, cut behind the gills and collarbone to remove the head. Remove the dorsal fin by cutting the flesh along both sides, then with a quick pull toward the head, remove the fin and root bones. Remove the rest of the fins in the same manner. Skinning the fish is easy. Try holding it by the head, and with a sharp knife, free a corner of the skin near the head. Pull the skin gently toward the tail, removing all the skin from one side. Repeat the same for the other side.

Filleting the fish is much simpler. Using a sharp fillet knife, cut from behind the gill arch along the dorsal fin, separating the flesh from the backbone. Then, slide the knife between the skin and flesh at the tailfin, removing the skin from the meat. Repeat the same procedure on the other side. Try not to puncture the entrails and avoid severing the skin while slicing the fillet. When this procedure is done properly, you should have two very clean fillets, with very little waste or bones. Now you are ready for pan frying!

Pan frying fillets, steaks, or whole fish will be most successful if you have a skil-

Become A Commercial Deep Sea Diver

For The Lowest Total Tuition of $1,295 + Reg. Fee For The Next Class



Coastal offers you a *complete* program of diver training in our Basic Air Course for only $1,295, plus a $100 registration fee —a price unequalled anywhere!

We'll teach you to become a well-rounded professional diver, trained in all phases of diving: salvage, construction, research and oil field, including hard hat diving.

Our comprehensive diver course is completed in only 11½ weeks (427 full-time hours) of training. Our safety record is unmatched—no accidents or fatalities in over 36 years of operation.

Join our next class. Write today for details. Or call (415) 532-4211.

Coastal School of Deep Sea Diving
320 29th Avenue, Oakland, CA 94601
(415) 532-4211
For full details and application form enclose $3 U.S. for handling and postage.

Name _____
Address _____
City _____
State _____ Zip _____
SD-17

SUBATEC
SWITZERLAND

THE PROFESSIONAL CONCEPT IN U/W PHOTOGRAPHIC EQUIPMENT



– SUBATEC S100/S200 SERIES . . . The most performant underwater strobes available today!
– SUBAWIDER II . . . Wide-angle supplementary lens with finder 90° underwater (17mm) for Nikonos 35mm lens.
– SUBALIGHT . . . Video/Film U/W modular lighting system. 10 to 800w., 15 to 280 min. burn time!

AKIMBO, INC., 1435 Estrella Dr.
Santa Barbara, California 93110
(805) 682-7161

let that distributes heat evenly. Choose a batter for your fish that's simple and light. Try soaking the fish in whipped milk and egg, then roll the fillet in your choice of ground bread or cracker crumbs, flour, cornmeal or wheatgerm. For an added touch, sprinkle the fillet with chopped walnuts, filberts or almonds. In a wide frying pan, heat either oil or butter until it foams, but doesn't brown. Then add as many fish pieces to the pan as will fit without overcrowding.

Turn each piece carefully with a large spatula until both sides are golden brown. Slice one large onion thinly and sauté with mushrooms in lemon juice and butter. Sprinkle the mixture lightly over the fish. For cheese dipped snapper, add grated parmesan cheese and lightly add slivers of green peppers and onion sautéed in butter and accompanied with a zesty tartar sauce.

DELTA 28

(Continued from Page 30)

movable deck hatch, the Delta's power options include a 250 hp GM 8.2T, a Volvo TAMD 60C 250 hp, or a Caterpillar 3208N at 210 hp. Other options include a hardtop, half tuna tower or an anodized aluminum tower with steering controls.

According to Dave Inman, owner of Divers Unlimited, one of Fort Lauderdale, Florida's largest dive charter operations, his Delta has been an extremely reliable and cost effective boat. In service since his busy operation opened, the *Diversion* sees about as much service as any boat in the state.

"Since it is a single screw boat," says Inman, "the Delta operates and handles very well. It has only one engine so our fuel and maintenance costs are minimized, thus maximizing our potential to operate economically and profitably . . . . Equally important, in addition to being an excellent workboat, the Delta has the air, clean lines and good looks of a small yacht. That's important because it makes us look good to our customers. No one wants to go diving in a boat that looks like an old scow."

Either version of the Delta comes ready to go to work or play when it is delivered. Prices range from $42,066 to $48,454, depending on model and engine choice. The hardtop adds $3,814, while the aluminum tower with controls adds $5,995. All prices are FOB Port Canaveral, Florida and do not include shipping.

For a flier or additional information contact Delta Boat Works, 746 Mullet Road, Cape Canaveral, Florida 32920; (305) 783-3536.

DIVE THE WORLD
every month with
skin diver

4 REASONS WHY YOU MUST CALL CENTRAL BEFORE YOU PLACE YOUR DISCOUNT MAIL ORDER

1 – CENTRAL SKINDIVERS is a full time, full line pro shop with an olympic size indoor pool. For over 35 years we have taught **SCUBA**, tested new products and helped design many items used today. We know every diving item made, anyplace!!!

2 – CENTRAL shops the entire world just for you. We carefully check every diving item and always have the newest and the best at the lowest prices. **CENTRAL** has thousands of other items not shown in this ad. Our giant discounts gets you the best values for your money.

3 – CENTRAL guarantees you the lowest prices on individual items or package deals. You get the manufacturer's guarantee **PLUS AN EXTRA YEAR FROM CENTRAL** (on anything except lifetime guarantees). Not only the lowest prices, but service too!!! We custom suits, repair anything, fill, etc., etc.

4 – CENTRAL is open 7 days a week. Orders placed with charge cards or money orders are shipped within hours. All shipping and insurance (except tanks) is paid by **CENTRAL** in Continental U.S.A. WE CANNOT BE UNDERSOLD! If you see something advertised for less, let us know and we'll beat the price. Call 516-826-8888 now!!!

OPEN 7 DAYS MON. TO FRI. 10-9, SAT. 10-7, SUN. 10-5
PHONE (516) 826-8888

CENTRAL CANNOT & WILL NOT BE UNDERSOLD! BILL, RICH, DAN & ARCHIE ABSOLUTELY GUARANTEE IT!



STABILIZING JACKETS
Famous Makes, Best Quality,
Low Pressure Inflator & Hose,
Quick Dump, "Travel" Kam Pack
PRO A.D.V. STYLE (S, M, L or XL) $185
1986 ORIGINAL MANTA (S, M, L or XL) $239
PRO STAB. CUMMERBUND (S, M OR L) $199
STAB. JACKET (M or L) $125
Central pays shipping
B.C.'s AND STAB JACKETS FROM SHERWOOD, US DIVERS, DACOR, SEAQUEST, SEATEC, PARKWAY, TABATA, ETC. ALWAYS ON SALE



REGULATORS
SUPER DELUXE (List $280) $179
DELUXE BALANCED PISTON (List $220) $149
FLOATING SEAT PISTON (List $170) $129
BALANCED PISTON (List $160) $99
OCTOPUS (LONG HOSE) (List $80) $45
Central pays shipping
REGULATORS FROM US DIVERS, DACOR SHERWOOD, SEAQUEST, TEKNA ETC. ALWAYS ON SALE



THERMO-PLASTIC FIN
Jet Type Blade
Vented Clear/Black Plastic
Adjustable Straps
CLEAR STRAP FIN (M or L) $34
GRAPHITE STRAP FIN (M or L) $39
TRI-VUE SILICONE MASK $32
SILICONE VENT SNORKEL $15
NYLON 2-HARD SOLE BOOTS $22
Central pays shipping



TANK SPECIALS
Top Name Brand
Deluxe Valve
Your Color Choice
ALUMINUM 80 CU. FT. K $109
ALUMINUM 100 CU. FT. K $159
Plus Shipping
CONTOURED KAM-PAC $35
ALL OTHER TANKS INCLUDING PONYS FROM US DIVERS, DACOR AND SHERWOOD ALWAYS ON SALE

All prices are for mail order only
Store prices may vary.



CLOSING OUT ALL CAMERA GEAR
OCEANIC 2001 STROBE $240
OCEANIC 2003 STROBE $299
OCEANIC LIGHTMETER $ 60

WATCHES
SEIKO AUTOMATIC DAY DATE $149
CHRONOSPORT AUTOMATIC DATE $139
HEUER QUARTZ DATE $179
CHRONOSPORT GOLD QUARTZ $350
HEUER BLACK CORAL II $299
CHRONOSPORT U.D.T. STRAP $329
Central pays shipping
ALL OTHER WATCHES ALWAYS ON SALE



DELUXE CONSOLES
PRESSURE/DEPTH COMBO $59
PRESSURE/MAX DEPTH/TEMPERATURE COMBO $79
PRESSURE/DEPTH/COMPASS TRIPLE $79
PRESSURE GAUGE W/HOSE $42
OIL FILLED DEPTH GAUGE $39
FAMOUS MAKE CONSOLE W/PRESSURE GAUGE, MAX DEPTH, COMPASS & DIGITAL BOTTOM TIMER $169
Central pays shipping
PRESSURE AND DEPTH GAUGES FROM US DIVERS, DACOR, OCEANIC AND TEKNA ALWAYS ON SALE

FAMOUS SUITS NYLON 2 SIDES
¼" HI WAIST SUPERSTRETCH $139.50
¼" FARMER SUPERSTRETCH $169.50
¼" FARMER SUPERPLUSH U.S.A. $199.50
⅛" DELUXE SHORTY $69.50
CLEARING OUT XS, S, M ¼" SUITS $50.00
Central pays shipping
OTHER WET OR DRY SUITS AND SHORTIES FROM VIKING, PARKWAY, US DIVERS, HENDERSON, HARVEY, ETC. ALWAYS ON SALE



DELUXE PACKAGE DEAL WITH OCTOPUS
REGULATOR, PRESSURE & DEPTH CONSOLE
STABILIZING B.C. JACKET & OCTOPUS **$300**
WE BEAT ANY PACKAGE DEAL & PAY SHIPPING

BOTTOM TIMER
Luminous
Lifetime Warranty
Altitude Adjustable
BOTTOM TIMER $52
Central pays shipping
BOTTOM TIMERS AND WATCHES FROM TEKNA, SEIKO, CHRONOSPORT, HEUER CASIO AND IKELITE ALWAYS ON SALE.



1986 DECO BRAIN NOW ONLY $399.50

Central Skindivers
2608 Merrick Road, Bellmore, NY 11710
*** (516) 826-8888 • Open 7 days**
160-09 Jamaica Ave., Jamaica, NY 11432
Open 6 days
Minutes from Manhattan and Kennedy Airport
Central is a PADI Facility
Lessons For Beginner Through Instructor.

Use and operation of life support equipment should not be undertaken without qualified and proper instructions in their use. This ad does not imply the sale of life support equipment through the mail.

CENTRAL SKINDIVERS
2608 Merrick Road, Bellmore, NY 11710
Phone: (516) 826-8888
Minimum Mail Order $50
Minimum **VISA** or **MASTERCARD** $75
Minimum **AMEX** or **PADICARD** $100

Name _____
Address _____
City _____ Apt. ____
State _____ Zip _____
Phone ( ) _____
Please rush attached order! Sorry NO C.O.D.
$ _____ enclosed (N.Y. add tax) or bill my charge card
_____ Exp. Date _____
☐ **VISA** ☐ **AMEX** ☐ **MASTER CARD** ☐ **PADICARD**
Signature _____

ARIS

Vanguard Regulator



TEXT AND PHOTOGRAPHY BY ERIC HANAUER

Although not yet a household word, U.S. Tech is a major producer of scuba gear. Buoyancy compensators, regulators and gauges, all from OEM companies, are offered under the U.S. Tech banner. The entire product line is American made. At the present time, it is available only through Berry Scuba, but if demand develops, U.S. Tech products will be sold through other dive stores as well. Three regulators are currently offered, all named after NASA space probes: Ranger, Explorer and Vanguard. The top-of-the-line Vanguard comes with either a silicone or black rubber covered second stage and is the subject of this report.

The Vanguard's compact first stage is a balanced, flow-through piston design, with a stainless steel piston and spring. Four low pressue ports are on a swivel, which will feel tight to the first time user. Once the system is pressurized, however, it loosens up and moves more freely. But it is still tight enough to prevent hose flop when doffing or donning equipment. There are two high pressure ports, providing a choice of right or left sided placement for the submersible pressure gauge and console. Seven ambient pressure openings encircle the first stage body. The diameter of the openings is small, to prevent entry of large sand grains and other contaminating particles into the piston chamber.

The second stage body is chromed stainless steel, with a rubber cover held in place by a plastic retaining ring. It can be removed for cleaning by slipping a screwdriver into the notch on the bottom of the ring and prying it off. An advantage of the flexible cover is that you can press anywhere on it for purging.

The logo on the front says Aris, which stands for Air Regulating Injection System. This refers to an aspiration tube that directs the airflow toward the mouthpiece, initiating the venturi action that provides maximum flow at lower inhalation effort. A hinged balance weight rests against the exhaust valve when the diver is in a head down position. This is designed to eliminate water leaking past or air escaping from the exhaust valve when descending. In practice, there was a slight airflow on descent (see test report), but this is a characteristic of most regulators and is not objectionable. There was no water leakage.

Testing regulators for SKIN DIVER isn't all it's cracked up to be. It is usually done in cold, deep water, with a long checklist that keeps you busy writing on a slate instead of watching the scenery. The test unit is attached to one side of a Y-shaped slingshot valve, with a reference regu tor on the other. Its performance is co pared with a model intended for the sar market segment. Sometimes, subs quent tests are done with an ultra-hi performance model to sort out any am guities. You've got to breathe it down low tank pressure to see how it reac but that comes quickly because a lot air is wasted doing freeflow and hea breathing evaluations.

The test of the U.S. Tech Vanguard b gan as we descended into Scripps Ca yon through a layer of opaque green w ter. But, at the lip of the canyon, an abru thermocline cleared things up to 40 fe of twilight on the rocky walls. A san shelf was covered with the molts of p lagic red crabs and a large number of li ing ones peeked out from small crevice Larger crevices housed lobsters ar moray eels, while the two largest clov nudibranchs I have ever seen worme their way across the sand. At times li this, it is difficult to keep your mind regulator tests. Mine certainly wasn therefore another dive day was require to complete the procedure.

Throughout the two days of diving, th Vanguard performed well. It proved to b a dry breathing regulator that compare favorably with my reference unit in th

same price and performance range. Under high demand conditions at depth, it supplied all the air needed at the end of a hard inhalation. At first there was a slight restriction. But as I continued to inhale, it felt as if the Vanguard suddenly kicked into high gear and air blasted in as though power assisted. This initial restriction was felt only on high demand when deeper than 100 feet. On all other tests, it breathed smoothly.

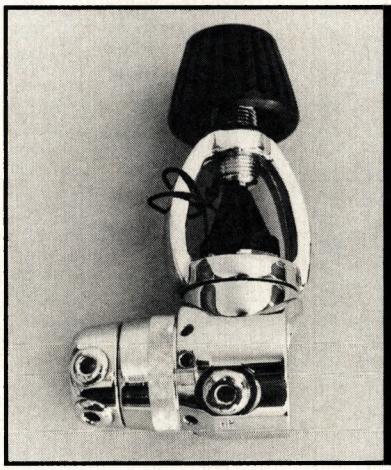
Cracking effort is low, as evidenced by smooth flow when lying on the bottom and just sipping air. The textured silicone mouthpiece felt extremely comfortable.

On a head down descent, there is a slight spilling of bubbles from the exhaust, but not enough to be considered a freeflow. Many regulators exhibit this characteristic. Changing positions from prone to vertical had little effect on breathing ease. Only when I was on my back, looking upward, did breathing become more difficult. But there was no water leakage when I was in that position, which was not the case with my reference regulator.

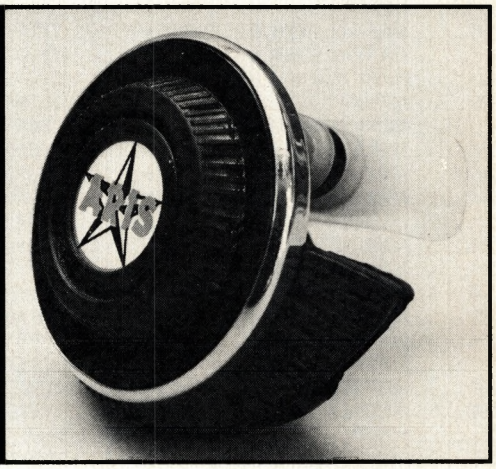
There was a gentle freeflow when the Vanguard was removed with the mouthpiece up, but it stopped as soon as the mouthpiece was turned down. Purging required just a puff of air, with no residual water. Pressing anywhere on the rubber cover took care of clearing via the big blast method.

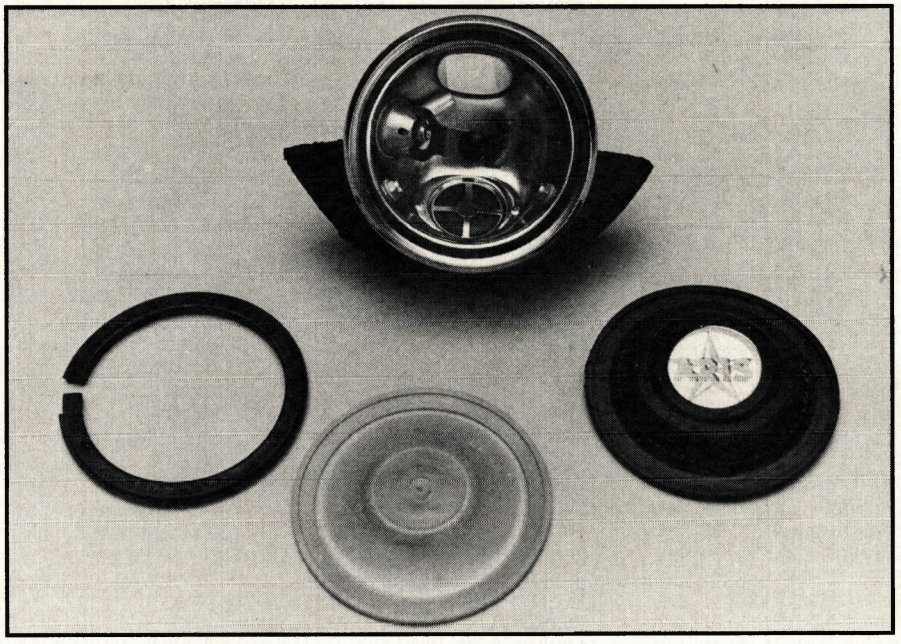
Overall, the Vanguard's performance was comparable to other regulators within its price range. (The silicone cover version is $30 more.) It comes in a padded, hard plastic case large enough to accommodate a console and octopus as well. All U.S. Tech regulators are serviced at U.S. Tech or Berry Scuba. Berry vice president Richard Drew promises a two day turnaround. The warranty, written in plain English, covers the housings and all moving parts as long as the original owner keeps the regulator. All other components are covered for two years.

At the present time, the Vanguard is available only from U.S Tech's distributor, Berry Scuba. For further information contact Berry at 6674 Northwest Highway, Chicago, IL 60631.



U.S. Tech is a major producer of scuba gear including buoyancy compensators, gauges and regulators. U.S. Tech's top-of-the-line Vanguard regulator's first stage has a balanced, flow-through piston design and offers four low pressure ports on a swivel. There are two high pressure ports, giving the diver a choice of right or left side placement of the SPG. The Vanguard's second stage has the logo Aris, which stands for Air Regulating Injection System. This refers to a tube that directs the airflow toward the mouthpiece, initiating venturi action. The second stage interior can be accessed by removing a retaining ring (below at left).





VANGUARD

First stage:
- Type ..... Balanced piston
- Maximum pressure ..... 4,000 pounds
- Materials ... Chrome plated brass body
  Stainless steel piston and spring
- High pressure ports ..... Two, 7/16 inch
- Low pressure ports ..... Four, 3/8 inch on swivel
- Intermediate pressure ..... 140 psi

Hose length ..... 26 inches

Second stage:
- Type ..... Downstream, lever action
- Materials ..... Case, stainless steel
  Diaphragm & exhaust valve, silicone
  Cover, rubber
- Features ..... Aspiration tube venturi
  Weighted exhaust valve control
- Warranty ..... Limited lifetime on case and moving parts
- Price $280

SKIN DIVER ADVERTISER INDEX & READER SERVICE PROGRAM

Readers wishing additional information from participating advertisers are urged to use the convenient accompanying card. To receive free materials, locate the advertiser on the list below. The number to the left is the reader service number. Simply circle this same number on the card and mail. Advertisers not participating in the reader service program are indicated by a star (★).

READER SERVICE NUMBER	ADVERTISER	PAGE NUMBER
208	ADORAMA	152
263	ADVENTURE DIVERS	57
265	ADVENTURE SCUBA	55
167	AKIMBO, INC.	146
★	AMERCO	130
257	AMERICAN DIVING H.Q.	57
★	AMERICAN HONDA	6
★	AMERICAN HONDA	7
109	ANTHONY'S KEY	93
★	ANUHA ISLAND RESORT	83
240	APRIL SEAS, INC.	108
245	AQUA ACTION	69
264	AQUALA, INC.	157
221	AQUANAUT SCUBA CENTER	52
128	AQUANAUT WTRSPRTS.	135
210	AQUA VISION SYSTEMS	159
174	ATLANTIS TOURS	126
293	AUSTRALIA (Quicksilver)	84
294	AUSTRALIA (Hayman)	84
295	AUSTRALIA (Scheherazade)	84
296	AUSTRALIA (Fitzroy)	84
298	AUSTRALIA (Mike Ball)	85
299	AUSTRALIA (Port Douglas)	85
165	AVIS CAR RENTAL	70
286	BAHAMAS TOURISM	81
★	B & A JEWELERS	152
116	BAUER CMPRESRS.	138-139
117	BAYMAN BAY CLUB	110
225	BERRY SCUBA	151
212	B & H PHOTO	144
239	BLACKBEARD'S CRUISES	98
199	BLACK BART'S	157
309	BLUE WATER DIVERS	107
★	BOHLKE AIRWAYS	69
288	BOLONGO BAY	63
122	BONAIRE BEACH HOTEL	121
291	BONANNI ENTERPRISES	145
148	BOOLCHAND'S CAMERA	70
289	BOTTOM TIME	125
★	BROWARD CTY. TOURIST	54
260	BROWARD CTY. HTL./MTL.	56
176	BROWNIE'S 3RD LUNG	128
310	BYE-COASTAL TOURS	107
125	CAPT. SLATE'S ATLANTIS	44
247	CARIBBEAN DIVERS	69
235	CARIBBEAN BLACK CORAL	130
★	CAYMAN AGGRESSOR	111
111	CAYMAN ISLANDER HTL.	90
285	CAYMAN ISL. TOURIST	80
118	CAYMAN EXPRESS	112
★	CENTRAL SKIN DIVERS	147
256	CHATTEM LABS	21
★	CHURCH, JIM & CATHY	129
207	CINNAMON BAY	69
155	CLASSIC TOURS	135
★	CME VIDEO	154
168	COASTAL SCHOOL	146
129	COCO VIEW RESORT	80
★	COCO VIEW RESORT	134
★	COLLEGE OCEANEERING	20
127	COLONNADES BCH. HTL.	50
303	COLUMBUS HOUSE	107
180	COMMERC'L DVNG. INST.	159
103	CONTINTL./TWO WORLDS	115
★	CRESSI-SUB	156
241	CRUZAN DIVERS, INC.	74
233	CSA/BUCCANEER HTL.	71
271	DACOR CORPORATION	8-9
157	DELTA BOAT WORKS	21
169	DESTINATION HAWAII	127
187	DIVE ABACO	130
178	DIVE B.V.I.	128
153	DIVE EXPERIENCE, INC.	76
★	DIVER'S ACADEMY	157
219	DIVER'S SUPPLY/MACON	153
101	DIVER'S WORLD K. LARGO	45
252	DIVER'S DEN SOUTH	41
234	DIVER'S GUIDE ST. CROIX	75
202	DIVERS' TRAVELGUIDE	102
203	DIVERS' TRAVELGUIDE	104
113	DIVER'S INST. TECH.	78
216	DIVI LIVE-ABOARD	92
177	DREAM TEAM	48
307	EREBUS HOTEL	107
173	FISHERS, J.W.	140
217	FLAMINGO BEACH HTL.	120
262	FLORIDA DIVE & SKI	55
139	FOSTER'S, DON	123
102	FRANK'S DIVE SHOP	47
250	GALAPAGO INN	131
297	GBR (Reef Explorer)	85
300	GBR (Heron Island)	85
253	GINNIE SPRINGS, INC.	55
228	GO DIVING INC.	128
147	GRAPETREE BEACH HTL.	76
280	HARVEY'S	14
290	HAWK'S CAY	52
★	HELIX LTD.	31
149	HELO ENTERPRISES	144
145	HOLIDAY INN G. CAYMAN	127
140	HOSPITALITY WORLD	122
234	HOTEL CARAVELLE	73
130	HOTEL SOL CARIBE	114
258	HYDROSPACE DIVE SHOPS	54
194	HYPERTECH, INC.	159
★	IKELITE	23
204	INTL. DVNG. EXPEDITIONS	86
308	ISLAND PRINCESS	107
★	IS. PROPERTIES REPORT	118
305	ISLAND REEF HOTEL	107
192	JAN'S SEA CREATIONS	157
132	KEENE ENGINEERING	142
141	KITTINA HOTEL	125
304	KITTINA HOTEL	107
114	LA CEIBA BEACH HOTEL	117
158	LA CEIBA HOTEL	82
181	LADY CYANA DIVERS	48
142	LA STREGA	86
★	MARINA DEL MAR	46
154	MARINER SUITS	144
★	McCOY, SAM, LODGE	154
274	MONROE COUNTY	53
188	NATL. INST. EXPLORATION	157
120	NAUI PROF. DIVE CTR.	143
★	NETHERTON, LESTER	135
272	NIKON, INC.	25
282	NIKON, INC.	27
★	NISSAN	18A-D
★	O'BRIEN, MICHAEL, O.D.	157
269	OCEAN CORP.	33
267	OCEANIC U.S.A.	C2
★	OCEAN QUEST INTL.	105
209	OCEAN RAY	154
146	OCEAN TECH. SYS.	140
★	ON THE RUN	155
119	PADI INTL. COLLEGE	141
131	POSADA DEL SOL	118
198	POSEIDON VENTURES	119
★	PRO DIVE FLORIDA	48
★	PRO DIVE FLORIDA	49
133	PYRAMID ISLAND	122
292	QUEENSLAND TOURIST	84
184	REEF DIVERS	67
124	RIDING ROCK INN	104
261	ROUSE, NORINE, SCUBA	49
276	RSL	102
170	RUM CAY DIVING CLUB	127
163	SAND DOLLAR BCH. CLUB	131
182	SAPPHIRE BEACH RESORT	67
105	SAWYER, CHRIS, DIVING	65
159	SCUBA SCHLS. OF MAUI	100
150	SCUBA WORLD	154
301	SCUBA WORLD	106
259	SEA DWELLERS	43
★	SEA FANS VIDEO MAG.	35
244	SEA FEVER DIVING	134
266	SEA QUEST OF FLORIDA	52
★	SEAQUEST	10
★	SEAQUEST	11
★	SEA SCHOOL	130
112	SEASPORTS DIVE CENTER	51
★	SEATEC INFLATABLE SYS.	18
218	SEA VENTURES	129
200	SEAWARD HOLIDAYS	109
★	SEE & SEA TRAVEL	103
★	SEE & SEA TRAVEL	134
270	SHERWOOD SCUBA	17
143	SKIN DIVER WET SUITS	146
279	S.M.Y. INTL.	13
106	SOMERSET BRDG. HTL.	128
121	SOTO'S, BOB, DIVING	116
★	SOUTHERN CROSS	134
107	SPANISH COVE	99
251	SPORT EUROPA	58
281	SPORT SUITS/AUSTRALIA	28
★	SPYDERCO	134
★	STRAIGHT, ROBERT	145
★	SUBMERSIBLE SYSTEMS	140
123	SUNSET HOUSE	100
214	SURFSIDE WATERSPORTS	101
268	TABATA U.S.A.	C4
278	TABATA U.S.A.	36
283	TAG-HEUER	3
220	TIARA BEACH HOTEL	91
183	TORTUGA CLUB	130
193	TRAVELLER'S TOURS	74
306	TREASURE BEACH	107
273	TREASURE ISLAND HTL.	87
★	TRIMARINE BOAT CO.	82
160	TRIP AND TOUR	108
213	TRI-STATE CAMERA	156
136	TRIVIAL NARCOSIS	142
211	TROPIC BIRD	129
302	TURKS & CAICOS	106
135	TURNEFFE IS. LODGE	123
249	TWO WORLDS/BAHIA	124
237	UNDERSEA ADVENTURES	113
242	UNDERWATER SAFARIS	67
★	UNDERWATER ST. CROIX	76
229	U/W ADVENTURE	121
246	UNEXO	126
190	UNIQUE JEWELRY	135
★	U.S. DIVERS CO.	C3
243	U.S. SCUBA	155
205	U.S. VIRGIN ISLANDS	75
★	V.I. SCUBA/SAIL	67
134	WALKER'S CAY HOTEL	114
★	WENOKA CUTLERY	4
227	WEST END DIVING	124
161	WHITE'S ELECTRONICS	18

Your SCUBA Package Headquarters

BERRY SCUBA

Chicagoland Winter Seminar and Course Schedule

Beginning U/W Photo: Learn the techniques, equipment, and skills needed to take great underwater photos. Eight hour seminar. Feb. 2. $95.00

Advanced U/W Photo: Learn advanced techniques and skills, special tricks, and more to enhance your underwater photography skills. Eight hour seminar. Feb. 3. $95.00

Ice Diving: Three day course covering all aspects, from research, to planning, safety, and diving. Three Ice Dives are included. Certification available. Feb. 4, 7, 8 $150.00

Recompression: This eight hour seminar includes a presentation on uses of Recompression chambers, a tour of a local Recompression facility, and a chamber dive. Certification available. Feb. 21 $50.00

CHICAGO AND ATLANTA STORES ONLY MINUTES FROM AIRPORT AND EXPRESSWAYS



Package 1
U.S.TECH B-29 II jacket BCD with power, soft band pack, rapid exhaust, cummerband; Vanguard Sport regulator with high performance first stage, limited lifetime warranty; Tekna PSI/Max depth double console; Waterlung octopus with 36" hose.
Retail $765.00
Sale $512.50



Package 2
U.S.TECH ABC-II Advanced Buoyancy Compensator with power, soft band pack, rapid exhaust, cubberbund; Tekna regulator with ultra light servo second stage; U.S.TECH PSI/Max depth double console with thermometer and limited lifetime warranty; U.S.TECH Sport Octopus with 36" hose and limited lifetime warranty. Retail $905.00
Sale $554.50



Package 3
U.S.TECH Shadow jacket BCD, all black, with power, soft band pack; U.S.TECH Explorer balanced regulator with limited lifetime warranty; U.S.TECH PSI/Depth double console with limited lifetime warranty; Waterlung Octopus with 36" hose.
Retail $760.00
Sale $444.50



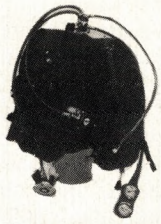
Package 4
U.S.TECH B-29 II jacket BCD with power, soft band pack, rapid exhaust, cummerband; Waterlung X-3 regulator; U.S.TECH Pressure gauge with limited lifetime warranty; U.S.TECH Sport Octopus. Retail $644.00
Sale $394.50



80, 65, 50 Cubic Foot Aluminum Tank only $59.95
Includes K Valve
With any of these eight SCUBA packages! Limit one tank per package.



Package 5
Parkway Ocean Jacket II Advanced BCD with rapid exhaust, power inflator, soft band pack, cummerbund; U.S.TECH Vanguard Professional regulator with SCUBA Guard padded case and limited lifetime warranty (Featured in Jan. '87 Skin Diver); Tekna PSI/Max depth double console with knife; U.S.TECH Sport Octopus with 36" hose and limited lifetime warranty.
Retail $905.00
Sale $613.50



Package 6
U.S.TECH Shadow jacket BCD, all black, with power, soft band pack; U.S.TECH Vanguard Professional regulator with SCUBA Guard padded case and limited lifetime warranty (Featured in Jan. '87 Skin Diver); U.S.TECH PSI/Depth Double console with limited lifetime warranty; U.S.TECH Sport Octopus with limited lifetime warranty.
Retail $855.00
Sale $509.50



Package 7
U.S.TECH ABC-II Advanced Buoyancy Compensator with power, soft band pack, rapid exhaust, cubberbund; U.S.TECH Vanguard Professional Silicone regulator with SCUBA Guard equipment case and limited lifetime warranty; Tekna PSI/Max depth double console with knife; U.S.TECH Sport Octopus with limited lifetime warranty.
Retail $925.00
Sale $603.50



Package 8
U.S.TECH B-29 II jacket BCD with power, soft band pack, rapid exhaust, cummerband; U.S.TECH Ranger regulator with limited lifetime warranty; U.S.TECH Pressure Gauge with thermometer and limited lifetime warranty; Waterlung Octopus with 36" hose. Retail $657.00
Sale $414.50

Berry Scuba Co.
6674 N. Northwest Hwy.
Chicago, IL 60631
(312) 763-1626

Berry Scuba Company
#26A Yorktown Mall
Lombard, IL 60148
(312) 495-2822

Berry Scuba Company
1717 Rand Road
Palatine, IL 60067
(312) 358-3848

Berry Atlanta
3443 Stewart Ave.
Hapeville, GA 30354
(404) 766-1186



Contact II Silicone Package
Featuring the Contact Open Heel vented fin with "smoke white" blade for added power and good looks, silicone low volume mask with soft seal, and color coordinated silicone snorkel. Retail $130.00
Sale $82.95

Chronosport Atlantis
Layred in 14 Karat gold, this splendid divers watch features a rotating bezel, locking crown, quartz movement, date, matching gold layred band, and more! Mens or womans.
Retail $435.00
Sale $329.95





Black Coral II
Elegant two tone black and gold watch and band. Quartz, date, rotating bezel, locking crown, more. Mens 980.029. Womans 980.028.
Retail $415.00
Sale $299.95

14 Karat Gold Octopus
This denizen of the sea undulates it's tentacles towards unseen prey. Almost 1¼ inch long! With hoop for necklace.
Retail $110.00
Sale $79.95



12 lb weight belt set	$19.95
Octopus with 36" hose	44.95
U.S.DIVERS knife with sheath, 5" blade	19.95
Snorkel with blue bore and silicone mouthpiece	9.95
Mask box, fits most masks	4.95
Tire inflator - attaches to BCD power inf. hose	8.50
Ikelite 2500 compass	24.95
T-Shirt with manatee	8.95
T-Shirt with Queen Angel	8.95
Diving log book - a must!	3.00

Berry's suggestion for this month



U.S.TECH *Vanguard Professional* regulator, as featured in Jan. '87 Skin Diver. High performance balanced first stage with four L.P. ports on swivel, two H.P. ports, and tripple chrome plating. Second stage is constructed from triple chrome plated marine brass, silicone exhaust valve and mouthpiece, and oversized purge button. Includes Scuba Guard padded equipment case.
Retail $280.00 **Sale $184.95**

Rotary dive calculator	$2.00
Hose protector	2.50
Wet suit shampoo	5.95
4 X 5 Slate with pencil	4.95
Nikonos V w/35mm lens, warranty	424.95
Underwater Video book	14.95
Tracking Treasure book	12.95
Jumbo 15 X 30 heavy duty gear bag	26.95
Cordura tank bag	39.95
16 X 12 X 6 padded gear box	29.95

How to order: By mail- Send a certified check, casheirs check, money order, or a charge card number and expiration date to Berry Scuba, 6674 Northwest Hwy., Chicago, IL 60631. **By phone-** Outside Illinois you can call our Toll Free order line at (800) 621-6019 - This is our computer line, so you will need to know prices, models, etc. This line is for orders only. If you have questions, need assistance, or wish to order, call (312) 763-1626. We accept Visa, Mastercard, Discover Card, PADIcard, and American Express. This is not an offer to sell mail order. **Scuba diving requires special training. No gear should be used by non-certified, non-trained persons.**

Send for your free copy of our giant sale catalog!



TUDOR

THE WATCH THAT'S BUILT TO WORK WHEREVER YOU PLAY.

In a world of dust, dampness, sand and surf, Tudor watches are built to withstand the punishment of work or play. The Tudor Prince® Oysterdate Submariner full- and mid-size watches shown here are self-winding, pressure-proof to 660 feet and feature a revolving 60-minute time elapse bezel.

Only at your Official Rolex Jeweler.

Men's Oysterdate $645 •without date $565 • Mini-Sub Oysterdate $625.

B AND A JEWELERS INC.

Manufacturer & Designer of **Quality** Jewelry

172 New Dorp Lane

Staten Island, New York 10306

ROLEX

Authorized Jeweler

(718) 667-6700

Mail and Phone Orders Welcome

Over 1000 Fine Watches On Display For Immediate Delivery

SUN. 9:30-6

PHONE ORDERS ACCEPTED DAY OR NIGHT
MON.-THURS. TILL 9:30 PM EDT FRI. 9-2

ADORAMA

THE PHOTOGRAPHY PEOPLE

138 WEST 34TH STREET
NEW YORK, N.Y. 10001

212/564-4465

TOLL FREE OUT OF STATE
800-223-2500
HAWAII & ALASKA
800-232-7662

Nikon UNDER WATER SYSTEM

*Nikonos V	299.95
New! Action Touch	Call
15/2.8	899.95
New! 20/2.8 UW	Call
28/3.5 213.95 28/2.8 LW	154.95
35/2.5 UW 94.95 80/4 UW	208.95
28mm UW Finder	14.95
35 & 80mm UW Finder	15.95
DF-10 Finder f/80mm (Above Water)	67.95
DF-11 184.95 DF-12	117.95
**SB 102 w/case	588.95
**SB 103 w/case	292.95
TTL Sync Cord (Land)	59.95
PC Flash Adapt (Land)	23.95
Dbl TTL Sync f/SB102	99.95
Dbl Bracket f/SB102	114.95
Dbl Bracket Set f/SB102	229.95
Extention Arm f/SB102	99.95
SU-101 Sensor	86.95
Close up kit w/o case	129.95
Support Arm f/Close Up	29.95
Macro Lens Set f/Nikonos	49.95
Lens Hood & Filter Holder	5.95
CC 30R Filter	17.95
Nikonos Case	29.95
O-Ring Set	6.95
Nikonos Handbook by Church	18.95

*FREE EXT. TUBE OR U.W. CASE
**FREE DIVE LIGHT
CALL FOR DETAILS

ACCS. F/NIKONOS

Toshiba Aqua F-III	219.95
Toshiba F-III TTL	269.95
Ikelite Ext Tube Set	104.95

SEA & SEA ACCS.

17/3.5 Lens w/cs	439.95
Viewfinder f/above	54.95
24mm Lens Kit	159.95
YS-100 TTL	339.95
Ext Tubes 1, 2, 3, .	@ 56.95

UNDERWATER CAMERAS

Minolta Weathermatic-A	74.95
Canon AS6 Underwater	Call
Canon AS6 w/Accs. Kit	136.95
New! Vivitar Trek 50	117.95
Fuji HDM Underwater	159.95
Olympus Infinity	139.95
Sea & Sea Cameras	Call

HANIMEX

Hanimex Amphibian 110	87.95
Hanimex Amphibian 35mm	147.97
Amphib Flash (110 or 35mm)	97.95
Camera Bracket & Grip	37.95
Close-Up Lens Set f/35mm	27.95
Macro Lens f/35mm	43.95
Wide Angle Lens f/35mm	86.95

SEA & SEA

Motor Marine 35	189.95
Motor Marine 35 w/Bulk Head Conn	209.95
Wide Angle Lens (24mm)	149.95
Macro Lens	59.95
Close Up Lens	36.95
45 20M Strobe	99.95
45 50M Strobe	199.95
Sea Grip V Tray & Handle	71.95
Sea Arm II	88.95
Sea Arm III	84.95

UNDERWATER ACCS.

Sekonic L164B Meter	86.95
Eumig Nautica Underwater Super 8 Movie Camera	199.95
Sima Sports Pouch	19.95
Toshiba U.W. Flashlight	36.95

SUB SEA

#103 Mark 100 Strobe f/Nik 3/4/5	309.95
#149 Mark 150 Strobe f/Nik 3/4/5	434.95

For All Other Accs. **Please Call**

AQUA VISION

Aquatica 3 f/Canon F1 New or Nikon F3	1469.95
Capsule 8	664.95

ikelite
underwater systems
DISC CASE PACKAGE

Disc Camera w/Housing, Water Corr. Lens & Sports Finder	99.95
Above w/Substrobe S & Travel Bag	209.95

HOUSINGS

f/Most 110 Cameras	46.95
f/Kodak Disc Cameras	52.95
f/Most SLRs w/Sup. Eye	269.95
f/Most SLRs w/o Sup. Eye	229.95
f/JVC/GXN7	289.95
f/Sony CCD-M8U	229.95
f/Other Video Camcordes	Call

FLASH UNIT & ACCS.

Substrobe S	96.95
Substrobe M	93.95
Substrobe MS	113.95
Substrobe MV	129.95
Substrobe 100	279.95
Substrobe 150 w/N.C.	389.95
Substrobe 150 D	314.95
Substrobe 225 w/N.C.	429.95
Strobe Arm I	25.95
Strobe Quick Handle	58.95

WATCHES & COMPASS

DDL-1000 Digital Timer	89.95
Pro Compass (Wrist)	22.95
Pro S Compass (Wrist)	32.95

DIVING LIGHTS

Ikelite-2	26.95
C Lite-2 w/Nicad & Charger	92.95
Mini C Lite Krypton	19.95
Modular H Lite	53.95

Other Ikelite Accs.—Please call

PELICAN Water Proof, Unbreakable

Guard Box	13.95
#1400	43.95
#1500	63.95
#1600	104.95
#1700	119.95

Kodak SLIDE FILM

	w/o proc.	w/Kodak proc.
KM (25) 135-36	4.39	7.64
KR (64) 135-36	4.39	7.59
KR (64) 135-24	3.05	5.63
EN (100) 135-24	3.49	6.07
EN (100) 135-36	4.32	7.65
ET (160) 135-36	5.70	9.05
ED (200) 135-24	4.05	6.63
ED (200) 135-36	4.99	8.34
EL (400) 135-36	5.99	9.34
EES (1600)135-36	7.49	—

PROFESSIONAL FILM

PKM (25) 135-36	5.09	8.44
KPA (40) 135-36	5.69	9.04

FUJICHROME SLIDE FILM w/PROC.

RF 135-36 (50)	6.14
RD 135-36 (100)	6.09

ewa-marine
MASTER SERIES
THE ONLY FLEXIBLE U.W. CAMERA HOUSING

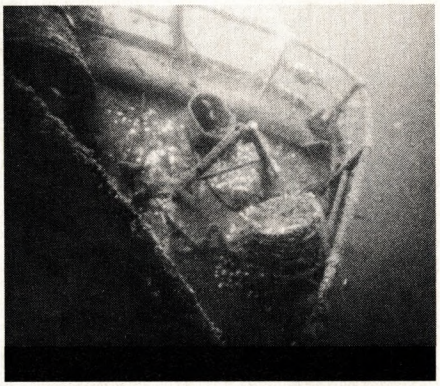
U-F SLR w/Winder	64.95
U-FXP SLR, Winder & Side Mount Strobe	69.95
U-FX SLR, Zoom & Flash	83.95
U-FPN SLR, Zoom, Motor & Flash	75.95
U-FGM SLR w/Tall Strobe	78.95
U-FZ SLR, Medium Zoom	74.95
U-FZL SLR, Long Zoom	81.95
U-AL Disc & Compact 35mm's	24.95
U-AFM Autofocus	38.95
UND Super-8 Movie Cameras	59.95
SL Super-8 Bolex Movie Camera	59.95
Cape f/SLR Cameras	9.95
Walkman Housing	29.95
U-H Medium Fmt Cameras	87.95
Housing f/Video Camera	127.95
Housing f/Sony 8mm Handy	127.95
Hurricane Hood	30.95

MOST ORDERS SHIPPED WITHIN 48 HOURS

No surcharge for Master Charge or Visa purchases. Personal checks welcome, will ship without delay. Name must be imprinted on check, also include address, phone & a copy of major credit card or drivers license for reference. We are licensed by Consumer Affairs Dept. Lic. #800188. Shipping Charges: $5.95 + over 3 lbs. 50¢/lb. + over $750.00 2% of value, otherwise 3%. 14 day money back guarantee less shipping, with packing and blank warranty card, except film and paper. We ship UPS. All orders are subject to acceptance and verification.

Products in this ad are supplied with Adorama's own exclusive warranty. Copies are available upon written request, may not include english instruction. Products are parallel imports which are not accompanied by manufacturer's warranty and not eligible for rebates offered by manufacturer unless manufacturing or distribution warranty included. Pictures are for illustration purposes only and may not be exact.
Prices effective till Jan. 3, 1987. N.Y. Residents Add Sales Tax.

ALL FREE GOODS MUST BE REQUESTED AT TIME OF PURCHASE



THE SS JOHN MORGAN

A Dive For The Shipwreck Purist

TEXT AND PHOTOGRAPHY BY WILLIAM H. HUGHES

The time had come for a dive trip, and I knew exactly what I wanted: an American East Coast shipwreck endowed with history and legend. Forget the Caribbean's gin clear waters, casinos and duty free shops. As much as I enjoy them, they only tend to distract me from my purist joy, researching and photographing the shipwrecks that litter the East Coast. Loading my truck, I started the drive down I-95 to Virginia Beach, Virginia. During the nine hours that followed, I mentally reviewed the research that was drawing me there like a magnet.

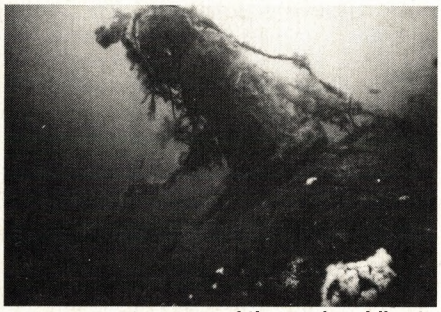
In May 1943, the United States Navy had rallied its forces and made the American East Coast shipping lanes a perilous place for U-boats. So effective were the new anti-U-boat techniques that German Admiral Karl Doenitz was forced to remove his submarines from United States coastal waters.

American industry was also flexing its muscles. War goods were flowing out of the factories at rates even the boldest economists had deemed impossible. This would all be to no avail however, unless the implements of democracy could be delivered quickly where they were needed most.

To transport the goods, shipyards up and down the East Coast worked around the clock to build large cargo vessels. In early May, hull number 2128 slipped off her ways at the Bethlehem-Fairfield shipyards. Known as a type EC2-S-CI Liberty Ship, she was christened the SS *John*

Morgan. On May 17, 1943, she began loading cargo in Philadelphia, Pennsylvania, for her maiden voyage to Bandor Shahpour, Iran. Her manifest documents commodities typical of her times.

To feed the troops abroad, she loaded canned goods such as: hams, pork, pork sausage, cheese, wheat flour, vegetable beef stew, powdered milk and eggs. Other cargo consisted of laundry soap, steel in sheets, bars, rails, track joints and spikes. Vehicles were in demand on the fronts and trucks, motorcycles and bull-



Upper left: The stern of the sunken Liberty Ship *John Morgan*. Above: Part of the *Morgan*'s deck. Note the pronounced list.

dozers took their places in the holds.

With a war on one might suspect ammunition and weapons would comprise a substantial part of her lading. And comprise it they did! Tons of 20mm and 90mm cannon, 37mm armor piercing, .50 caliber incendiary and cases of mortar rounds were carefully secured below deck. Osrleken machine guns, 140 tons of TNT, 698 tons of smokeless gun powder, four 90mm anti-aircraft guns and 722 tons of aviation fuel were written on her manifest and loaded below.

Her holds overflowing, there remained room for more cargo only on the upper deck. Here were placed 28 P-39 Bell Aircobra fighter planes and 10 Canadian built Valentine tanks.

On May 27, 1943, the *Morgan* sailed for Norfolk, Virginia, to await a rendezvous with a southbound convoy. She made the short run without incident and arrived on May 31. Her crew was informed of an early morning, June 1 departure, then given shore leave. For most, it would be their last!

While the Morgan's crew enjoyed their liberty, the 16,000 ton oil tanker SS *Montana* was heading north in convoy for Norfolk. At 11:15 am, she was sent a signal informing her to divert to New York City. A copy of the radio transmission was sent to the War Shipping Administration Office in Norfolk, but owing to red tape, it did not arrive there until 2:58 am, on the morning of June 1. At this time, the *Morgan* was already underway. Little did anyone realize that, because of lack of information about the *Montana*'s new orders, the ships had been placed on a collision course.

At 0408 hours, an explosion occurred off the coast of Virginia. This was followed by blazing oil slicks that lit up the

NEVER UNDERSOLD

Divers Supply

SUPER PACKAGE I



- DOLPHIN JACKET
  87" Model with Auto Inflator
- TWO GAUGE CONSOLE
  W/Maximum Depth
  Colors: Blue, Yellow, Black
- NAME BRAND REGULATOR
  X3 Balanced Regulator
  W/Life Time Warranty
- OCTOPUS REGULATOR
  W/Life Time Warranty

$299.95

• Add $12.50 for Cummerbund

SUPER PACKAGE II



- ADVENTURE JACKET
  87" Model Advanced Design
  With Auto Inflator
- TWO GAUGE CONSOLE
  W/Maximum Depth
  Colors: Blue, Yellow, Black
- NAME BRAND REGULATOR
  X3 Balanced Regulator
  W/Life Time Warranty
- OCTOPUS REGULATOR
  W/Life Time Warranty

$349.95

• Add $12.50 for Cummerbund

SUPER PACKAGE III



- MARK V JACKET
  87" Model Advanced Design
  Complete W/Auto Inflator
  R.E. Valve, Light & Knife
  Pockets & Cummerbund
- CONSOLE
  Beuchat Console
  W/Maximum Depth
  Colors: Blue, Yellow, Black
- REGULATOR
  W/Life Time Warranty

$379.95

Free Shipping And Insurance With Orders Over $75

THERMOTEC DRYSUIT PACKAGE



Thermotec Drysuit
Undergarment 2302
Inflation Value
Large Equipment Bag

Retail Price $826.50
Sale Price
$384.95

ALUMINUM TANK
80 CUBIC FOOT
FAMOUS BRAND



HOW TO BUY!
With each $350.00 purchase made at Divers Supply you qualify to purchase one Aluminum 80 cubic foot Tank for $79.95. Customer pays shipping.



DESIGNER PLUSH SUIT
Farmer John With Step In Shortie
Plush Lining With Nylon Exterior
3/16" Thickness W/Flex Material
Cross Zipper For Easy Entry
Navy Blue W/Multi-Color Striping
Knee Pad & Spine Pad
Women's Suit is French Cut
$165.00

CALL OR VISIT . . .
Information Express Line 1-912-474-6790
Toll Free Order Line (Out of state only)
1-800-241-4739
All our operators are certified divers
They speak your language
"Ask for free catalog"



SUSIE

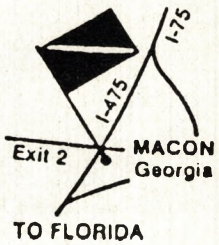


SANTA



BECKY

Open seven days a week
Same Low Prices In Store
Located on Interstate
(at exit 2 on I-475)



Use and operation of the support equipment should not be undertaken without qualified and proper instructions in their use. This ad does not imply the sale of the life support equipment through the mail.

5208 Mercer University Dr.
Macon, Georgia 31210

Ocean Ray WET SUITS
289-G Suburban Avenue
Deer Park, NY 11729
WRITE FOR FREE COLOR BROCHURE
ORDER DIRECT
from manufacturer
SAVE $
CALL TOLL FREE
800-645-5554
New York Residents Call
516-667-7249
VISA MasterCard
SPINE PAD IN BACK
VELCRO CLOSURE
YKK VISLON ZIPPER
KNIFE POCKET
NON CORROSIVE TWIST LOCKS
KNEE PADS
NEW SUPERFLEX MATERIAL!
NECK SEAL
DRY VALVES
WRIST SEALS
KNEE PADS
ATTACHED DRY BOOTS
Same Day Shipment • Satisfaction Guaranteed
Hours M-F 8am - 6:30 pm; Sat. 9am - 3pm
Eastern Standard Time
FARMER JOHN DELUXE 1/4'' N-2 Navy w/Blue Arms 154.95
WOMAN's FARMER JOHN 1/4'' N-2 Navy & Silver Lycra 134.95
FARMER JOHN 1/8'' N-2 Navy w/Blue Arms 124.95
DRY SUIT 1/4'' N-2 Navy w/Royal Blue Arms With Dry Valves 360. (as shown) With Oral Inflator 299.00
1/4" N-2 Cold Water Hood 19.95
1/4" N-2 19.95 Hard Sole Boots
1/4" N-2 3 Finger Mitts 19.00
1/8" N-2 19.95 5 Finger Gloves
FARMER JOHN REGULAR - 1/4" Nylon-2, Navy with Blue Arms & Collar 129.95
HIGHWAISTED - 1/4" Nylon-2, Jacket & Pants Navy w/ Blue Arms & Collar 120.00
SHORTY 1/8" Nylon-2, Blue with Black Trim, short sleeves 65.00
VEST AND HOOD - 1/8" Nylon-1, Blue 34.95
VEST WITHOUT HOOD - 1/8" Nylon-1, Blue 27.95
• All Suits & Accessories Triple Glued • Sewn • Bartacked • Dealer Inquiries Invited •
SHIPPING by UPS
Suits - 5.00 ea.
Accessories 2.50 ea
Accessories ordered with suit 1.00 ea

SCUBA REFRESHER VIDEO
SCUBA VIDEO CASSETTE
SCUBA REFRESHER COURSE - NAUI & PADI Instructors demonstrate basic diving techniques. A safety must for Ccard holders who do not dive regularly.
HOW TO USE DIVE TABLES - Includes training guide & tables. Approved by D.A.N. Director. VHS or BETA $49.50 ea. or both $90.00. CME VIDEO, Bay Point, Box 461, Panama City, FL 32407. Visa/M.C. 1-800-826-8493. In FL (904) 234-3673. DEALER INQUIRIES INVITED.

Little Cayman
Why Listen To Others? - Come See For Yourself
Reefs, Wrecks, And The Finest Wall Diving In The World
The Ultimate In Caribbean Diving
For More Information, Brochures, And Reservations Call:
Sam McCoy's
Little Cayman, B.W.I.
1-800-843-2177
(412)834-4064 PA./Alaska

SCUBA WORLD III
TOLL FREE ORDER HOT LINE
FLA 1-800-826-9658
US 1-800-843-3916
COMPLETE STARTER PACKAGE $99.00
ECONOMY PACKAGE $309.00
SPECIALS
Combo w Max-Depth $74.95
Hard Sole Boots N2 19.95
12 lb Weight Belt 17.50
Silicone Vent Snorkel flex or standard 9.95
Advanced Style B C 189.95
Mini-C Light 24.95
Plush Hood 29.95
1 8 Farmer Wetsuit 179.00
Deluxe Gearbag 29.95
Includes: Lifetime Warranty Regulator
Combo Guage w/max-depth
BC Jacket w/power inflate
for Advanced Style Vest add $40.00
Includes: Mask, Snorkel, Fins Weights, Belt, Gloves & Boots
DRIVING OR FLYING TO CENTRAL FLORIDA
VISIT ANY OF OUR THREE LOCATIONS
FOR THE BEST IN DIVING VALUES
ALTAMONTE SPRINGS 935 W. SR 436 862-5489
WINTER PARK 1045 N. Semoran 677-5489
LONGWOOD 1667 S. U.S. 17-92 695-0991
Life support equipment should not be used or operated unless properly trained and certified. This ad does not constitute an offer to sell via mail order.

SS JOHN MORGAN

skies for hours. The explosion was so tremendous that wreckage and debris hurtled through the air and showered a Coast Guard ship one-quarter mile away.

The *Morgan* perished in the blast, taking 66 of 69 men to the ocean bottom. Eighteen of the *Montana*'s complement of 82 were lost in the inferno.

Deck Cadet W.J. Leonard was a Navy gunner assigned to the *Montana*. He gave the following macabre account of the collision. "The freighter (*Morgan*) struck the tanker's (*Montana*) port side a glancing blow." The impact knocked Leonard down and saved his life. "The amidship house was quickly ringed by flame and a sheet of flame swept through while I was on the floor. The captain, the first, second and third mates, six Navy gunners and two signalmen were in the house. I believe them all lost. They must have swallowed the flames."

Leonard told Navy officials he heard two explosions, the first from the *Morgan* and the second from the *Montana*. He added, "the freighter disintegrated and went to the bottom almost immediately." To save his life, he jumped overboard and later found a life raft. "It was hotter than Hades on the raft. The wind kept changing, bringing the blazing oil nearer and then blowing it away from us. I heard some men yelling as they struggled in the oil, but we could not help them." Leonard was fortunate and escaped with just minor burns on his arm.

A messman, Martin Varnell, was awakened by a shipmate and fled his smoke-filled quarters. Once on the deck, they started toward the lifeboats only to find "a wall of fire." "I saw three men dead on the poop deck," Varnell related. "I believe they were Navy gunners. One had his arms and legs blown off." Varnell and his shipmate jumped overboard and were picked up by a Coast Guard cutter an hour later. He said, "I don't see how we got out of it." The *Morgan*'s entire merchant crew and 25 of her 28 man gun crew were lost. Of the three survivors, only 20 year old Edward Matagora was in any condition to be questioned.

Badly burned about the face and lying in a hospital bed, Matagora told how he was awakened by a shipmate, ran to the deck and jumped overboard without a lifebelt. He was rescued by a Coast Guard ship after swimming for two hours, the first 10 minutes of which he fought for his life. Diving under blazing oil slicks, he swam beneath the surface to openings between the flames. He said he would have "burned to death" if he had been wearing a lifebelt, since it would have prevented him from diving.

The *Montana* limped into Norfolk for repairs and eventually returned to service.

The *John Morgan* and her cargo settled on the sandy bottom 115 feet below the Atlantic. Because of her depth and the lack of advanced diving technology, there were no salvage attempts made.

A DIVE ON THE JOHN MORGAN

Saturday morning, July 13, 1985 dawned hot and clear. It found 12 divers on the 40 foot charter boat, *Cindy Loo*, anticipating what proved to be a real adventure—exploring a World War II Liberty Ship that had gone to the bottom with her cargo intact. The ride to the wreck was estimated to take six hours, providing adequate time for me to become acquainted with Ed Lewis. Ed is reputed by divers in the Virginia Beach area to be the authority on the Morgan. As a result of making numerous dives on her, he had sketched a detailed map of the site. When I told him I would like to photo-



A WW II, Canadian built Valentine tank on the deck of the *Morgan*. Much of the ship's cargo consisted of war materials. Many items are strewn around the wreck.

graph everything of interest in one dive, he smiled and replied, "That's impossible." He kindly offered to give me a tour that would cover the highlights. It proved to be a tour I will never forget!

Anchoring over the *Morgan*, Captain Sam Smith gave a quick review on the evils of decompression diving. After hanging several tanks and regulators off the stern at 10 feet as a safety measure, diving commenced.

Starting down the anchorline, conditions revealed that the often fickle visibility was excellent. Passing through several thermoclines, though, reduced it to about 40 feet. Ed and I settled onto the deck at 100 feet, beside numerous rotting wooden boxes. They contained rounds of 37mm armor piercing ammunition still wrapped in oily paper.

Like silent sentinels, three Valentine tanks materialized out of the diffused

(Continued on Page 159)

DISCOUNT CHRONOS

and hi-tech items

1 YEAR WARRANTY — 30 DAY TRIAL

ON THE RUN guarantees the lowest prices, largest selection, fastest service, 1-year warranty on all watch modules and a 30-day trial. We're North America's largest sportswatch dealer and we'll meet all prices in this magazine!

We give you our full address and our own toll-free order center (not just an answering service).

—FOR FASTEST ACTION—
CARD HOLDERS ORDER TOLL-FREE
800-437-4385

Credit card holders may use toll-free number above or send check or money order **plus $3.00** for each watch. Add an additional $2.00 for U.P.S. air delivery. North Dakota residents add 4% tax.

On The Run
107 Roberts St., Dept. SK-1
P.O. Box 67, Fargo, ND 58107
Telephone (701) 232-9400

Write for a free one-year subscription to our catalog of timepieces and hi-tech items for better living.

NEW CASIO NAUTILUS DEPTH-GAUGE CHRONO WITH 10-YEAR BATTERY
660 FT
FEATURING—
- Depth-gauge to 300 feet
- Waterproof to 660 feet
- Professional stopwatch
- Countdown dive-time alarm
- 12/24 hour time, 3 alarms
- Electronic calendar, AM/PM
- 12-digit LCD display simultaneous with alarm, chronograph, timer or calendar
- Amazing 10-year battery, night light
- ¾ oz. case/band
- Night light, long life battery



only **$49.95**

NEW CITIZEN AQUALAND ELECTRONIC DEPTH METER CHRONO
660 FT
FEATURING—
- Super-accurate depth gauge from 1 meter to 80 meters
- Waterproof to 660 feet
- Depth alarm, depth recording, dive time recording
- Audible dive time alarms
- Digital stopwatch
- Luminous hands/dial
- One-way bezel, safety locks
- Calendar, depleted battery warning signal



$199.95

MEN'S 200M DIVER
660 FT
FEATURING—
- 660 ft. waterproof
- Swiss ESA movement
- One-way bezel
- Screw-lock crown
- Luminous hands/dial
- Stainless case, calendar
- Quality equal to Heuer and Seiko



$49.95

CASIO DW-1400
660 FT
FEATURING—
- 660 ft. waterproof
- 7-year battery/3 alarms
- 1/100 stopwatch, calendar
- Countdown timer
- Stainless case and band
- 12/24 time, night light

ALSO AVAILABLE:
DW1400C/Resin band . . $34.95



$44.95

AQ-100WG
330 FT
FEATURING—
- 330 ft. waterproof
- 1/10 stopwatch
- Daily/hourly alarms
- Luminous hands/dial
- Digital display with dual time
- 12/24 time, calendar



$49.95

LADIES' 200M DIVER
660 FT
FEATURING—
- 660 ft. waterproof, ¾ size
- Swiss ESA movement
- One-way bezel
- Screw-lock crown
- Luminous hands/dial
- Stainless case, calendar
- Quality equal to Heuer and Seiko



$49.95

LORUS LADIES ER011
330 FT
FEATURING—
- 330 ft. waterproof
- Long-life battery
- 1/100 stopwatch, calendar
- 12/24 hour time
- Daily/hourly alarms
- Manufactured by K. Hattori (makers of Seiko and Pulsar)
- Stainless case and band



$29.95

TIMEX IRONMAN
330 FT
FEATURING—
- 330 ft. waterproof
- 1/100 sec. stopwatch
- 8-lap multisplit memory
- 3 mode countdown timer
- Daily/hourly alarms
- Night light, calendar
- Long-life battery



$34.95

CASIO DW-5400C
660 FT
FEATURING—
- 660 ft. waterproof
- 33-foot shock-proof
- 7-year battery, 3 alarms
- 1/100 stopwatch
- 12/24 time, 12-digit LCD
- Countdown timer
- Night light, calendar
- ¾ oz. case/band



$49.95

CASIO TOUGHWATCH II
330 FT
FEATURING—
- 330 ft. waterproof
- Withstands high/low temps.
- 5-year battery, 3 alarms
- 1/100 stopwatch
- 12/24 time, 12-digit LCD
- Countdown timer
- Night light, calendar
- ¾ oz. case/band



$29.95

CASIO TS1200
330 FT
FEATURING—
- 330 ft. waterproof
- Reads temp. in F° or C°
- 1/100 sec. stopwatch with repeat every hour
- Temp/daily/hourly alarms
- Calendar, 12/24 hour time
- 8 time zones, night light
- ¾ oz. case/band



$34.95

Deluxe Equipment Bag



Protect your equipment with this deluxe high-quality equipment bag constructed of heavy duty waterproof nylon. The ample main compartment features a rugged 'U' shaped two-way nylon zipper with locking rings and a zippered inside pocket. Additional storage capacity is provided with an expandable front pocket and two expandable side pockets. 2" wrap around nylon carrying straps are double sewn completely around bag and feature a padded handle for extra comfort.

See the complete line of affordable, high-quality US SCUBA products at your local professional diving center.

US SCUBA

P.O. Box 725109 • Atlanta, Georgia 30339

Dealer Inquiries Invited

TRI STATE CAMERA
160 Broadway, New York, N.Y. 10038 · 1-212-349-2555
VISA, MC ORDERS CALL TOLL FREE 1-800-221-1926

NIKONOS

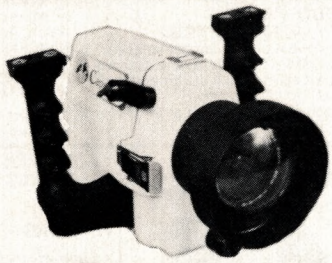
NIKONOS V	$305.00
ACTION TOUCH	165.00
15mm 2.8 W/FINDER	CALL
20mm 2.8	CALL
28mm 3.5	195.00
28mm 2.8	130.00
80mm 4.0	190.00
CLOSE-UP W/CASE	160.00
SB 101	CALL
SB 102	585.00
SB 103	304.00
NIKONOS V CASE	25.00
ALL ACC. IN STOCK	CALL

HANIMEX

110 AMPHIBIAN	$89.95
110 MF FLASH	99.00
110 MF CLOSE-UP LENS	32.00
35 AMPHIBIAN	164.95
35 AMPHIBIAN OUTFIT	CALL
35 AMPHIBIAN FLASH	99.00
35 AMPH. W.A. LENS	79.95
35 AMPH. CLOSE-UP	29.95
35 AMPH. MACRO	40.00

CANON

AS-6 BASIC	$125.00
AS-6 W/ACC	$145.00



- 2 hr. Recording
- Tested at 250 ft.
- All Metal Housing
- Compact
- Lightweight

Capsule 8

World's Smallest Underwater Video System!

The Sony Handycam 8mm video camcorder and the Capsule 8 aluminum underwater housing features an ultra wide-angle lens, U/W microphone, shoe mount for a Nikonos camera adapter and 2 shoe mounts for U/W lights!

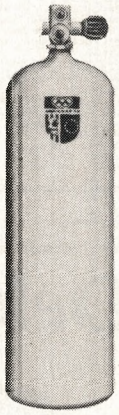
CALL FOR OUR LOW PRICE!

U.S. NAVY DIVE MANUAL
VOL. 1 ..... $34.95 VOL. 2 ..... 27.95

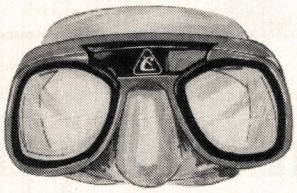
AQUANAUTS
MIAMI #1
Pro Dive Shop

Cressi-sub

Aluminum Tank 80
K-Valve
Price **$109.00**



AQUANAUTS DIVE SHOP
677 S.W. First Street
Miami, Florida 33130
Open 6 days 9 a.m. to 6 p.m. Closed Sunday
Tel. (305) 545-9000
Aquanauts Catalog $4.00



Optical Mask Silicone
Price **$110.00**

A word for the wise: "enough."

Don't drink too much of a good thing.
The Distilled Spirits Council of the United States.
1300 Pennsylvania Building, Washington, D.C. 20004
(A public service of the Liquor Industry and this Publication.)

THE UNSEEN MENACE

. . . No Way Of Knowing

BY DICK ANDERSON

Divers have a lot of stuff to worry about—everything from forgetting their fins to involuntary drowning. I hate to add to it. And, maybe I shouldn't, but why should I carry this burden alone?

Diving in Monterey Bay off Santa Cruz isn't like diving at Catalina, Hawaii or the Bahamas. An enthusiastic and terribly optimistic diver might describe it as subdued. It's cold and dark. In fairness, I've got to qualify this a lot by saying that California's central coast sport diving is reportedly some of the greatest. As a commercial diver I've spent hundreds of hours in Monterey Bay—but always at the wrong time of year and never in fun places. I do know, though, that even some of the sport diving sounds like sort of rough stuff.

One of the first sport diving trips I ever turned down, years ago, was an offer to dive for rock scallops off Santa Cruz.

"But, the water's awfully dirty," my friend said. "Then how do you see the scallops?" I asked.

"See 'em? You don't see 'em—you feel for 'em!" the guy replied. I hate to let on that I'm a sissy, but anyone who enjoys feeling around for rock scallops in murky icewater likes diving a whole lot more than I do. I mean, even though it *was* a long time ago, I still cringe when I remember an incident that happened at Catalina one time. I reached into a deep hole for a lobster and massaged the head of a big moray eel for a minute or two before I realized what I was fondling. One might call it explosive recoil. Fortunately for me, the moray rather seemed to enjoy the experience.

However, all that has nothing to do with the unseen menace—it's just to provide a suitable aura for what comes next:

Well, there I was, standing on the Santa Cruz pier in my splendid but dripping wetsuit. It was a day like any other in the life of a commercial diver except that it was Hitler's birthday. I was waiting for my coworker, Fearless Frank Toews, engineer and diver, to bring my lunch out of a restaurant. Even though it was raining a little the management didn't like soggy divers on their Naughahyde.

Standing around on piers in diving gear isn't what it used to be in the early '50s. Jacques Cousteau has created a populace completely indifferent to divers who stand around on piers. Where there used to be reporters with Speed Graphics there isn't even a kid with an Instamatic. And worse, there is some ridicule. My

standard wetsuit is a very conservative black three-eighths inch. But in icewater I augment that with an extra large one-quarter inch, worn over it. When buying the outer suit I go for the best deal I can get, without regard for fashion. That year it was a fair representation of a rainbow. It inspired one guy in a carful of rowdies to yell out, "Hey you guys, look at the size of that nudibranch!" See what I mean? If that yo-yo hadn't been exposed to Jacques Cousteau he wouldn't even know there were nudibranchs. Well, that ought to put an end to pier-standing as a popular pastime for divers.

Now, here comes the part that justifies the rip-snorting title of this piece: I finally got a live one. Along came a citizen who didn't watch enough Cousteau to make the nudibranch connection. The newcomer was an obvious "knight of the road," a vagabond, a hobo. He only had one arm. The other was just a stub that filled the top of his sleeve. He was a classically picturesque character except for the bag thrown over his shoulder. It wasn't the time honored gunny-sack but, as a sign of our times, a heavy duty plastic bag. One other thing was apparent: He had put on his T-shirt in 1946 and hadn't taken it off since. The neck was so dirty it was starting to crack.

My new pal had been a deepsea diver in the Great War and traveled the world doing spectacular deep diving deeds. He had seen things that few men had witnessed. This guy had been around.

"Do you ever see any sharks down there?" he asked.

"Well, I've seen a lot of sharks," I said, "but not around here."

He looked down into the turbid water. "Yuh won't either," he said, as though he knew something no one else did.

"Why not?" I asked. The hobo looked at me as though I were really naive.

"Yuh can't see 'em," he said, with some emphasis, as he glanced back down into the murk, "they're invisible!"

"Wow, I've never seen an invisible shark," I said.

"Naw, and you won't either," he confided, nudging me with his stub, "Yuh can't see 'em."

This might be of some comfort to those divers who are afraid of seeing a shark. Or, maybe it's worse. Maybe now they'll be afraid of *not* seeing a shark.

"How do you know there are invisible sharks?" I asked my worldly friend.

"How do I know? How do I know?" he mocked, poking me with his stub. "See this? How do you think I got this? I never seen him coming!"

The hobo looked down once more into the gloomy bay, shuddered, and shuffled off down the pier.

That was all I needed to round off the day of diving. I spent the rest of the afternoon nervously looking over my shoulder for invisible sharks. I didn't see any. Well, actually, I *might* have seen one or two but there was no way of knowing.



NEW! DIVE TITES!

A multi-use suit perfect for cold water insulation, warm water dives and beach wear!

ONLY $44.95

At last, a lightweight, skin tight, hi stretch, nylon lycra action suit! Acts as a warm water wet suit. Used as cold water insulation under regular suits. *Allows ease of entry into wetsuits.* Uses: before/after diving wear, exercising, snorkeling, waterskiing, windsurfing, boatwear, scuba diving, swimming, sailboarding, surfing, cycling — *ALL IN ONE SUIT.* Comfortable & colorfast, they drape body contours & will keep their shape indefinitely. Perfect for travel. Neutral in buoyancy.

SAVE MONEY! When you purchase two or more, pay only $39.95 each!

Dive Tites Provide Protection

* coral cuts * jellyfish
* wind * stings
* abrasions * chafing

Use our easy order form!

MAIL TO: Black Bart's, 24882 Mulrlands, El Toro, CA 92630

Name

Address

City, State, ZIP

ORDER TOLL-FREE
In CA 1-800-367-7776 after 10 am
Outside CA 1-800-348-8379 after 8 am (CA time)
Please have your VISA or MC ready

Credit Card # Exp. Date

1. CIRCLE THE SIZE				
Women's Sizes	SMALL 4'10"-5'4" 90-120 lbs.	MEDIUM 5'0"-5'6" 110-140 lbs.	LARGE 5'2"-5'8" 130-160 lbs.	X-LARGE 5'4"-5'10" 150-180 lbs.
Men's Sizes	SMALL 5'2"-5'8" 130-160 lbs.	MEDIUM 5'4"-5'10" 150-180 lbs.	LARGE 5'6"-6'0" 170-200 lbs.	X-LARGE 5'8"-6'2" 190-220 lbs.

2. CIRCLE THE COLOR				
Blue w/yellow stripe	Blue w/black stripe	Black w/blue stripe	Pink w/yellow stripe	Yellow w/pink stripe

3. SEND A CHECK, MONEY ORDER, CREDIT CARD

TAX (CA Residents must add 6%)
SHIPPING, HANDLING $2.00
TOTAL

BLACK BARTS AQUATICS

100 UNDERWATER PHOTOGRAPHERS WANTED

to participate in one of the most unique projects of the decade . . . to publish a book entitled "A Day at the Reef" which photographically documents the beauty, life and drama of the Florida Coral Reef System during a 24 hr. period June 20, 1987. Costs will be $590. For compiete details call National Institute for Exploration, P.O. Box 592, Key Largo, FL 33037; 305-451-3585 or 800-451-3585.

NEW

Jan's $ea™ Creations
1078 Canton Rd. • Akron,Ohio 44312
Cards, Gifts & Stationary
WATCH US GROW!
Write: Dept. G for free info.
C-cards™ AREN'T JUST FOR DIVERS ANYMORE.



Aquala INC.

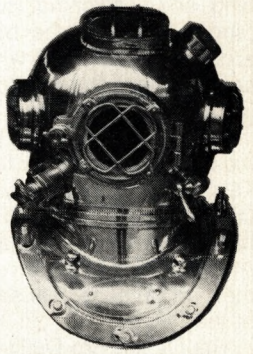
TRUE DRY SUITS
offering protection from cold and deep water dives, contamination, chemicals, etc. Easy front tunnel entry or water and gas proof shoulder zipper. Styles available for bay hunting, canoeing, surfing, yachting and custom made. Warranty.

AQUALA, INC.
P.O. Box 416 Carthage, N.C. 28327
(919) 947-3130

WEAR A DIFFERENT HAT

BECOME A PRO DIVER

One complete course including air, mixed gas, saturation, U/W cutting and welding, and chamber operation.



NATTS — National Association of Trade and Technical Schools — Accredited School

An eligible institution for student loans & grants. (Located in the Port of Philadelphia)

DIVERS ACADEMY OF THE EASTERN SEABOARD
2500 So. Broadway • Camden, N.J. 08104
Call 1-800-238-DIVE in N.J. (609) 966-1871

NAME _____
ADDRESS _____
CITY _____ ST _____ ZIP _____
PHONE _____
SD-17

20/20 VISION $79.00



The method of bonding lenses to the mask is the only one which corrects vision exactly as your glasses do. Individually analyzed by an optometrist experienced in diving and problems of underwater vision. To order send mask, a copy of your prescription including PD (distance between pupils) and $79.00. Bifocals $30.00 extra. Airmail return $4.00 extra. We can obtain complete information from your glasses. Prescription swimming goggles also available. Send for free brochure.

MICHAEL J.J. O'BRIEN, JR. O.D.
575 W. 6th Street, San Pedro, CA 90731
(213) 832-1185/832-7300



Oceanic USA offers three gear bags that should answer the needs of almost any diver. The mesh Wetgrip is the smallest, the Ocean Pro Duffle the largest and the Stowaway can be worn as a backpack.

OCEANIC'S 3-BAGGER

BY JIM WALKER

In baseball, hitting a triple is the closest thing to perfection. On a three bagger you touch all the bases but one. Oceanic's triple is a gear bag selection that should answer the needs of almost any diver. And, just in case it doesn't, by the time you read this Oceanic should be marketing a fourth bag—touching all the bases. The three bags currently available are the Ocean Pro Duffle (32 x 13.5 x 13.5″), the Ocean Pro Stowaway (24 x 14 x 20″) and the Oceanic Wetgrip (24 x 10″ in diameter).

The big bag, the Ocean Pro Duffle, will accommodate a tremendous amount of dive gear. Built of ultra tough, slick, waterproof nylon, it will hold more weight than you can probably carry. The body is one piece, with the end segments double stitched to it under reinforcing seam tape. The main compartment is accessed through a twin tab, noncorrodible YKK plastic zipper. There is a large plastic D-ring attached near each end of the zipper. Nylon webbing handles on either side of the bag are actually one continuous strap of webbing that encircles the bag in two locations. Thus, the weight of gear in the bag is supported by the webbing, not by stitching. However, the webbing is sewn to the bag continuously around its girth and where the handles separate from the bag there is a reinforcing strip of webbing.

One end panel of the bag is open mesh, which allows air to circulate inside. This mesh is reinforced by a diagonal strip of nylon. The other end of the Duffle has a sewn-on, zipper accessed pocket. Another large zippered pocket, with mesh drain panels, is sewn onto the side of the bag.

The Ocean Pro Duffle is a deep, shiny navy blue and its attached pockets are lustrous black.

Built of the same rugged material as the big bag, the Ocean Pro Stowaway can be carried with a webbing handle or worn as a backpack. Padded, adjustable, snap-in shoulder straps are attached to the front of the Stowaway under reinforcement. A long, zipper accessed pocket is sewn onto each side of the bag. One of these will hold your fins and the other your BC/tank backpack, if it has a collapsible band.

The main compartment of the Stowaway opens through a zipper that runs around three of its edges. Both the front and back of this grommet drained chamber are padded—to protect your gear and your back. One unique feature of this chamber is a roll-out changing pad. At the beach, you can sit/stand on the pad to put your wetsuit pants on without getting sand in them. The pad is also a great place to set masks and regulators to keep them out of the sand. When rolled up, the pad zips neatly out of the way.

Two padded, zipper opened pockets are attached to the back of the Stowaway. These will protect regulators or other gear and can double as insulated storage for an after dive cool one. The top pocket also has a flap outside that will accommodate maps, dive tables, etc. The Stowaway offers lots of space. Traveling divers have been known to carry their dive gear and their clothing in one.

Four adjustment straps (two top, two bottom) will help streamline the Stowaway and four triangular plastic D-rings allow additional gear, such as a speargun, to be tied on. There's also a plastic key clip sewn inside the main chamber.

The Oceanic Wetgrip is completely made of open mesh nylon. Items inside it will dry quickly. It's perfect for carrying snorkeling gear on a tropical dive trip. The Wetgrip has a two tab plastic zipper and two plastic D-rings. Its nylon webbing carrying handles encircle it in a manner similar to the Duffle, distributing weight on the straps instead of the stitching.

The Duffle, Stowaway and Wetgrip are available from Oceanic dealers and cost $52, $90 and $19, respectively. By the time you read this, Oceanic should be marketing a smaller version of the Duffle (Mini Duffle) as well as the original. For dealer information contact Oceanic USA, 14275 Catalina St., San Leandro, CA 94577.



photos/Bonnie J. Cardone

A large pad can be unrolled when the main chamber of the Stowaway is opened.

For honest answers about commercial diver training call —FREE
800-654-3483
in NY 800-847-8989
Commercial Diving Institute
151-19 POWELLS COVE BLVD. ☐ WHITESTONE, NY 11357

HYPERTECH INC
UNDERWATER VIDEO SYSTEMS
SHOWN
Housing for Sony Handy Cam $695.00
Complete U/W Video Equipment and Service
• Hyper-Lights
• Hyper-Saddle
• ¾" Professional
• Production Work
Some Systems Now in Stock
Ready for Delivery
Send for Free Brochure
P.O. Box 10513, Pompano Beach, FL 33062
(305) 782-4448

MOVING?
DON'T MISS A SINGLE ISSUE OF SKIN DIVER
Let us know your new address right away. Attach an old mailing label in the space provided and print your new address where indicated.
QUESTION ABOUT YOUR SUBSCRIPTION?
When you write, be sure to include a label. It helps us serve you more promptly.
TO SUBSCRIBE OR EXTEND YOUR SUBSCRIPTION-
Check the appropriate boxes below:
☐ New subscription. Please allow 4-8 weeks for your first copy to be mailed. ☐ Renewal subscription. Please include a current address label to insure prompt and proper extension. ☐ 1-year $15.94. This rate limited to the U.S.A. and its Possessions. ☐ Payment enclosed or ☐ Bill me.
MAIL TO: SKIN DIVER
6725 Sunset Blvd., P.O. Box 3295, Los Angeles, CA 90078
Name
Address
City State Zip
ATTACH LABEL HERE
(If label is not handy, print OLD address in this space.)

SS JOHN MORGAN

(Continued from Page 155)

light. They looked just as I had imagined them last winter when I traced their bills of lading to Canadian factories. I could not help wondering what commander cursed his misfortune at having never received them. Shades of Truk Lagoon I thought, as we worked our way toward the stern. Ammunition and equipment were strewn everywhere.

The stern proved to be in excellent shape with its propeller and rudder still attached. On the deck was a large winch wrapped with steel cable. Hovering several feet above it, I was provided an excellent photographic angle.

Swimming back amidship, Ed turned on his light and disappeared into an open cargo hold. Shortly afterward, we returned to the main deck and continued our progress forward. Encountering two ventilation shafts, Ed indicated we were going down one. For an instant I hesitated, but then followed.

The shaft opened into a corridor that was jet black. We followed it into a room that adjoined the main deck. From holes in the roof above, shafts of sunlight illuminated two Valentine tanks that were in absolute mint condition! I immediately began photographing them.

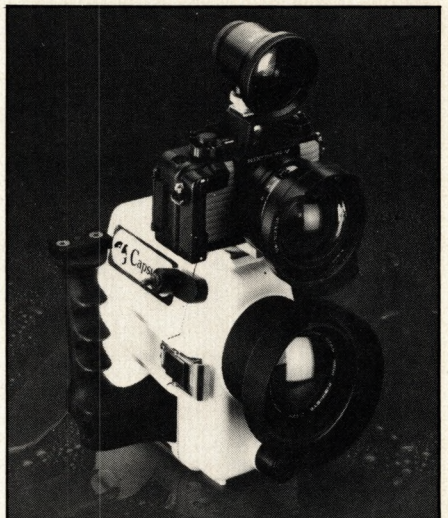
Swimming out onto the main deck, Ed motioned to the disappointing news on his bottom timer. It was time to terminate the dive. Regrettably, we ascended to 10 feet for a precautionary hang.

Back on the *Cindy Loo*, several questions came to mind concerning the *Morgan*'s cargo. What had happened to the P-39 Aircobra fighter planes? "Probably blown up and tossed high into the air by the initial explosion," Ed surmised. He added there is cargo strewn for hundreds of yards around the main pile. On occasion he has taken a Tekna diver propulsion vehicle and explored pie-shaped wedges of the ocean floor around the wreck. This has always revealed new finds such as trucks and motorcycles. Discoveries such as these make the *Morgan* an exciting dive every time.

During the long ride back to the *Cindy Loo*'s mooring, members of the charter group questioned my sanity at having traveled such a long distance for such a short amount of bottom time. Smiling, I recited a verse from Robert Frost: "Happiness makes up in height what it lacks in length."

Charters to the *John Morgan* can be arranged by contacting the Lynn Haven Dive Center at 1413 N. Great Neck Road, Virginia Beach, VA 23454.

Note: Ordnance found on the wreck should be left where it lies! Do ***not*** *disturb it or bring it topside!*

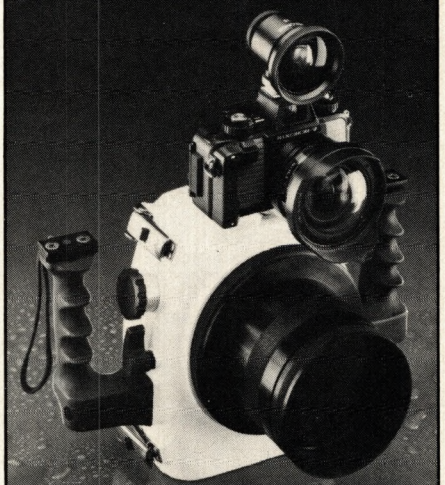

THE CAPSULE "8" houses Sony's State-Of-The-Art 8 mm "Handycam". It is without a doubt the most compact and lightweight underwater video system available today, from which superior results can be obtained with a minimum amount of instruction and experience.

SYSTEMS THAT REALLY WORK...WONDERS!

THE AQUATICA "3" houses the Nikon F3 and Canon F1.

It is the most complete and professional underwater photography system available today.

THE AQUATICA "3" is shown equipped with the 105 mm Macro Port and a Nikonos V mounted on the accessory shoe.


Aqua Vision Systems Inc.
804-A Deslauriers St.
Montréal, Canada H4N 1X1
Tel. (514) 336-7051

DIVER'S DIRECTORY

VISA MasterCard

Rates: $153 for 3 consecutive ads, $264 for 6 consecutive ads, $396 for a full year. PAYMENT MUST ACCOMPANY COPY. VISA/MC accepted. DEADLINE: 28th of 3rd month prior to issue date. Send copy and payment to: Diver's Directory, c/o Direct Marketing Division, P.O. Box 69910, Los Angeles, CA 90069. Call 213/854-2700 for more info. To place VISA/MC order call 800/231-4053 (U.S. only, outside CA).

ALABAMA

MCWHORTER ENGINEERING CO. 205/836-2814
P.O. Box 9014, Plant 1053, Gadsden Rd., Birmingham, AL 35213
Rebuilts, parts, accessories, ASME coded.
HP air compressors, units, systems, since 1952.

ARIZONA

BLUE WATER ADVENTURES, INC. 602/645-3087
P.O. Box 3467, Page, Arizona 86040
Specializing in custom boat tours of Lake Powell,
max. 6 divers, SSI inst., rentals, air, sales.

ARKANSAS

RICK'S PRO DIVE'N SKI SHOP, INC. 501/753-6004
2323 N. Poplar St., N. Little Rock, AR 72114 501/753-6060
Arkansas' only PADI 5 Star Instr. Development Ctr. w/indoor pool,
2 Cust. 40' Dive Boats, Dive Vaca. We teach 9 PADI specialties.

CALIFORNIA

ARGO DIVING SERVICES 213/510-2208
314 Metropole, P.O. Box 1201, Avalon, CA 90704
Guided underwater tours and instruction by
Jon Hardy on Catalina Island. Free information.

BLACK BART'S AQUATICS
34145 Coast Hwy., Dana Point, CA 92629 (CA) 800/367-7776
24882 Muirlands Blvd., El Toro, CA 92630 800/348-8379
PADI 5 Star facilities. Half day local dive boat.

BLUE DOLPHIN HOUSE—Catalina Island 213/510-1811
603 Beacon St., P.O. Box 2605, Avalon, CA 90704
2 bdrm. vacation rentals w/kitchen, cater to divers.
Boardsailing, diving instruction and rentals.

CATALINA DIVERS SUPPLY 213/510-0330
Avalon, Santa Catalina Island, CA 90704
Rentals, sales, air. 3 locations: Pleasure Pier,
Avalon Underwater Park, Lover's Cove.

GUCCIONE'S SCUBA HABITAT 714/594-7927
3220 Brea Canyon Rd., Diamond Bar, CA 91765
PADI 5 Star instr. develop. center. Family owned & operated.
'See Vue' & 'Atlantis' dive boats. 32' Radon for small groups.

PASADENA DIVERS WEST 818/796-4287
2695-A E. Foothill Bl., Pasadena, CA 91107
Sales, service, air, PADI, NAUI, instruction.
Rentals, boat trips, underwater photography, tours.

SCUBA DISCOVERIES 415/394-6555
651 Howard Street, San Francisco, CA 94105
Rentals-Sales-Air-PADI-Local & Foreign Dive Trips-
Instruction.

SCUBA DUBA DIVE 818/881-4545
7126 Reseda Bl., Reseda, CA 91335
Mon. - Sat. 10-7. Underwater photo specialist.
Boat trips, instruction, sales, service, rentals.

SCUBA LUV 805/496-1014
704 Thousand Oaks Blvd., Thousand Oaks, CA 91360
Home of the dive boat SCUBA LUV'ER.
Specialist in California Channel Islands Diving.

STAN'S SKIN DIVING SHOP 408/998-0767
554 So. Bascom Ave., San Jose, CA 95128
Full service shop over 25 years in the same location.
Sales of all major brands plus instruction, boat trips etc.

TRI-VALLEY SCUBA SCHOOL, INC. 415/828-5040
21310 San Ramon Valley Bl., San Ramon, CA 94583
Scubapro Dealer & full line of major brands.
The East Bay's "full service" pro dive store.

WATER EDUCATION TRAINING (WET) 619/693-DIVE
7094 Miramar Road at Distribution Ave., San Diego, CA 92121
YMCA, PADI, NAUI resort courses through instructor. Free weekly
scuba refresher classes. Full service vacation facility. Get WET.

WET PLEASURE 408-984-5819
2350 El Camino Real, Santa Clara, CA 95050 800/24-SCUBA
"Specialists in Underwater California".
Local diving adventures every weekend.

CONNECTICUT

CENTRAL SALES SCUBA 203/283-5007
136 Carter Rd., Thomaston, CT 06787 Ken Mischou, owner
Connecticut's most affordable dive shop. $1 air fills.
Classes, rentals, hydros, trips, repairs, used gear.

MULTITECH MARINE SWIM & SCUBA CENTER, INC. 203/739-9596
180 Flanders Rd., Niantic, CT 06357
Sales, services, rentals, travel, classes, activities. PADI
facil., Scubapro, Tekna, TUSA, UK, Ikelite, BlueWater, Parkway.

ORBIT MARINE SPORTS CENTER, INC. Open all year!
3273 Fairfield Ave., Bridgeport, CT 06605 203/333-DIVE
Foot of Broad St., Stratford, CT 06497 203/377-6969
Sales, rentals, air, service, NAUI, PADI instr., charters.

THE DIVING BELL, LTD. 203/775-3573
461 Federal Rd., Brookfield, CT 06804
Open all year. 5 Star PADI instruction. Specialties,
Travel, Photo, Rentals, Repairs, Gifts.

UNDERWATER SWIMMERS, INC.
526 Main St., West Haven, CT 06516 203/932-0258
1038 Farmington Ave., Kensington, CT 06037 203/828-3641
Discount prices, courses, rentals, repairs, air, hydros.

FLORIDA

AMERI DIVE 305/395-4407
7166 Beracasa Way, Boca Raton, FL 33433
Del Mar Shopping Village, corner Powerline & Palmetto.
Instr., sls., rental, svs., air, travel, resorts, Scubapro, PADI.

AMERICAN DIVERS 305/942-3000
2507 N. Ocean Bl., Pompano Beach, FL 33062 800/448-0808
*****PADI Training Facility . . . Come on down . . .
Dive the MERCEDES on our spacious 53' Sea Eagle.

BRENT FEINMAN'S SCUBA WORLD BY THE SEA 305/771-3933
4339 A Ocean Dr., Lauderdale-By-The-Sea, FL 33308 (STAY WET)
PADI 5 Star Facility, air, sales, svs., rentals, dive charters,
beach diving. All levels of cert. Priv. & Group lessons.

CRYSTAL LODGE MOTEL & DIVE CENTER Dive Shop 904/795-6798
U.S. 19 N., P.O. Box 456, Crystal River, FL 32629 Motel 795-3171
Manatee & spring diving, boats, equipment rental.
Heated pool, seafood, bar, rooms at low prices.

DIVE MIAMI Reservations:
"Gold Diver II" Custom Dive Boat 305/672-DIVE
30 min. to Miami's 20 wrecks & reefs 800/325-1337-at
U/W photography, PADI instruction. tone dial "Dive"

DIVE TECH 904/272-6933
1232-F Blanding Blvd., Orange Park, FL 32073
PADI Training Facility (Come Dive With Us!)
Trips, West Palm, Keys, Bahamas, and Bonaire.

DIVER'S DEN
12614 N. Kendall Dr., Miami, FL 33186 305/595-DIVE
8280 State Rd. 84, Ft. Lauderdale, FL 33324 305/473-9499
PADI 5 Star instruction, sales, service, rentals, trips, air, photo.

DIVER'S DEN/PNEUMATIC SYSTEMS, INC. FL 904/871-4777
4720 E. Bus Hwy. 98, Panama City, FL 32404 800/272-4777
Sales, rentals, service, fast charter boats, 6-15 passengers.
Instr. NAUI, PADI. Compressor sales, service, maint., overhaul.

DIVERS UNLIMITED 305/981-0156
6023 Hollywood Bl., Hollywood, FL 33024
Awarded #1 training facil. by PADI. All brands, whsl./rtl., daily boat
trips, repair, rental, classes, travel. 5 Star PADI IDC training facility.

DIVERS UNLIMITED/FORT LAUDERDALE 305/524-4862
440 Seabreeze Bl., Ft. Lauderdale, FL 33316
Daily boat trips, training dives, classes, retail—all brands, leisure-
wear, rentals. Packages w/Days Inn. 5 Star PADI training facility.

DIXIE DIVERS
Of Ft. Pierce, 1717 S. U.S. 1, FL 33450 305/461-4488
Of Stuart, 1843 S.E. Federal Hwy., FL 33494 305/283-5588
PADI 5 Star IDC facility. Open 7 days, full service.

FANTASEA SCUBA HEADQUARTERS 904/837-0732
P.O. Box 5498, #1 Hwy. 98, Destin, FL 32541 904/837-6943
PADI 5 Star instructor Development Center, D.V.I. resort,
sales & service, gulf charters, instruction, rental, air, travel.

FORCE-E, 1399 N. Military Trl., W. Palm Bch., FL 305/471-2676
877 E. Palmetto Pk. Rd., Boca Raton, FL 305/368-0555
2700 E. Atlantic Blvd., Pompano Beach, FL 305/943-3483
2104 W. Oakland Park Blvd., Ft. Lauderdale, FL 305/735-6227

GINNIE SPRINGS, INC. 904/454-2202
Rt. 1, P.O. Box 153, High Springs, FL 32643 800/874-8571
Six 72° clear blue springs, camping, canoeing.
Complete resort dive facility. Cavern instruction.

GOLD COAST CHARTERS, INC. 305/842-6356
113 Timber Run E., West Palm Beach, FL 33407
Palm Beach Custom diving 7 days a week. Reefs & Wrecks
We dive YOUR selected sight! 2 USCG certified dive boats.

GULF STREAM DIVER SCUBA CHARTERS 305/965-7878
2315 Caroma Lane, West Palm Beach, FL 33406
Palm Beach daily reef & wreck dives, pro charters,
Bahama boat trips. 2 new USCG 38' & 41' cust. dv. boats.

HYDROSPACE DIVE SHOP 800/874-3483
3605-A Thomas Dr., Panama City Beach, FL 32407 904/234-9463
The Gulf Coasts' largest and most experienced dive service.
5 boats 46', 42', 40', 24'. Full service facility.

JIM HOLLIS' RIVER RENDEZVOUS 305/273-3373
Route 2, Box 60, Mayo, Florida 32066 904/294-2510
Lodging, restaurant, sauna, steam room, jacuzzi, & modern camping.
Tubes, canoes, spring tours, rentals, 3-Day YMCA Scuba Courses.

LAUDERDALE DIVER 305/GO-SCUBA
1334 S.E. 17th St., Ft. Lauderdale, FL 33316 "On the Causeway"
Complete master diver program. PADI distinguished service
award. Instr., sales, service, air, photo, trips. Widest selection.

MAC'S SPORTS 813/442-9931
2126 Drew St., Clearwater, FL 33575
One of the world's largest diving & snow ski stores and
school. Pool and Ski Deck on premises.

MANATEE HEADQUARTERS/7 RIVERS INN 904/795-2776
744 U.S. Hwy. 19, Box 124, Crystal River, FL 32629
Dive tours & brand new motel. $43.43 p.p. dbl. & $54.70 single.
manatee dive, King Spring & Rainbow River. Full svs. shop.

NORINE ROUSE SCUBA CLUB OF THE PALM BEACHES
4708 N. Dixie Hwy., West Palm Beach, FL 33407 305/844-2466
A membership club for certified divers.
Dive trips 6 days a week.

PLANTATION INN MARINA 904/795-5797
P.O. Box 1093, Crystal River, FL 32629
Instruction, rentals, boats, canoes, pkg. deals, pvt. Manatee obser.
deck and air sta. at Divers Giant Spring. Golf, tennis, 150 rooms.

PROFESSIONAL DIVING SCHOOL/CHARTERS OF FLORIDA
Bahia Mar Yachting Center, Ft. Lauderdale, FL 33316
Basic-Divemaster training/specialties—night, deep, wreck,
"Instructor." Daily reef & wreck dives. 305/761-3413 800/772-DIVE.

SEAPRO SCUBA CENTER 305/844-DIVE
3619 Broadway, Riviera Beach, FL 33404
PADI 5 Star facility. Sales, service, instruction, rentals,
charters, air. Action sportswear. Tekna scooter rental.

TALLEY'S PRO DIVE 904/795-2776
P.O. Box 124, Crystal River, Florida 32629
Open wtr. cert. 3 days of fun $200. SHERATON INN pkg. rates. Full
svs. dive ctr. Tours: River Artifacts, Caver Cavers, Photog. Manatee.

THE SCUBA SHACK, INC. 305/334-8808
2485 N.E. Dixie Hwy., Jensen Beach, FL 33457
The Treasure Coast's oldest full service dive shop.
PADI instruction, air, sales, rentals, repairs, trips.

TOP DIVE INN OF THE SUN/Posada del Sol Guanaja, Bay Islands
P.O. Box 537, Boca Raton, FL 33429 800/642-3483 305/994-6232
A dive & fish paradise! $549 to $675 7 night packages
includes 3 day/1 nt. dives/wk., meals, lodging & more!!!

UNDERWATER VIDEO PRODUCTIONS (Ft. Lauderdale) 305/760-4158
#1 in Professional Broadcast Quality Videos, specializing in
Promos for dive shops & Custom Videos for sngls./grps. We go
anywhere, anytime to make you a star . . . VHS/Beta/3/4" formats.

FLORIDA KEYS

A DESIGN YOUR OWN KEY WEST DIVING/FISHING VACATION
P.O. Box 473, Key West, FL 33041 305/296-3737
Canal home w/fully equip. boat at back doorstep-max. conven. Capt.
takes you best spots dvg., lobster, spearfish, st. crabs, fish, etc.

ADMIRAL I—65 FEET OF COMFORT AND FUN! 305/451-1114
P.O. Box 0113, (MM 100), Key Largo, FL 33037
Scuba/snorkel trips to Pennekamp Reefs! PADI/MDEA Certifi-
cation courses start daily! Group and room package plans!

A KEY LARGO CONDO Call collect 813/939-3612
Moon Bay deluxe 2 BR, 1½ bath w/dock, sleeps 6. Near
Pennekamp, dive centers, marinas and Largo cut. Scuba,
snorkel, fishing, skiing, tennis. $395 per wk. Reserve early.

AMERICAN DIVING HEADQUARTERS, INC. 305/451-0037
Rt. #1, P.O. Box 274-B, Key Largo, FL 33037
SSI, PADI, NAUI. Pennekamp our specialty for 25 years. 2-7 day
packages, ½ & all day trips. For res. call toll free 800/634-8464.

AQUATIC FLOATING SEA COVE MOTEL 305/289-0800
12685 Overseas Hwy., Marathon, FL 33050
Budget Rates. Summer $19-$39, Winter $24-$44 for two.
Private deep harbor & ramp on Atlantic. A#1 rooms and effs.

A WATERFRONT DUPLEX 305/852-5230
Savor moonrise & palms at your 60' dock! 5 mi. to reef, 10 to
Pennekamp; tie up your rental boat or sample many charters.
We have great ambiance, windsurfing etc.! Sleeps 4. $395/wk.

BAY HARBOR LODGE 305/852-5695
Rt. 1, P.O. Box 35, Key Largo, FL 33037 MM 97.5
Best rates. Motel, efficiency apartments.
Beach, dock.

BIG PINE SEA CENTER DIVE SHOP 305/872-2319
P.O. Box 515, MM 29.5 US#1, Big Pine Key, FL 33043
Dive Looe Key, #1 Reef in FL. Keys, full service shop.
Dive/lodging packages, custom boats.

BUDDY'S DIVE SHOP Nat'l. 800/223-4707; FL 800/367-4707
P.O. Box 409, Islamorada, FL 33036 MM 79.5 305/664-4707
Dv. aboard our 40' 'Scuba Safari' & 34' 'Free 'n Clear'. Full/½ day
trips to Alligator Reef, Cannabis Cruiser & Coral Gardens. Pkgs. avail.

CAPTAIN CHAMBERS CHARTERS 305/451-1805
P.O. Box 2258, Key Largo, FL 33037 MM 100 Dive Pennekamp
31' cst. boat w/sundk., 6 max. Guide svs., U/W cam., 1 trip daily,
brunch served, cust. dv. pkgs. avail. Rec. by Undercurrent 3/82.

CAPT. CORKY'S DIVERS' WORLD of Key Largo, Inc. 305/451-3200
P.O. Box 1663, Key Largo, FL 33037 MM 99.5 U.S. 1 past Wendy's
Bahamas/Pennekamp, U/W video rental, snkl. w/dolphins, PADI instr.,
grp. rates, dive, snkl., sail, shell collect, spearfish. Best pkg. rates!

CAPT. CRAIG'S CHARTERS 305/451-0128
47 Shoreland Dr., Key Largo, FL 33037 (MM 103)(Hideout Restnt.)
Specializing in Treasure Diving. Pennekamp diving.
Live-aboard vessel, pick up and deliver at Miami Airport.

CAPT. GREG'S SCUBA-DO 305/451-3446
P.O. Box 2237, Key Largo, FL 33037 MM 100 @ 100 Marina
Dive Pennekamp, 34' Boat, 6 max. No crowds. Personal
Service. Combin. Dive & Fish Trips Avail. Pkg. Rates.

CAPT. SLATE'S ATLANTIS DIVE CENTER 800/331-DIVE
51 Garden Cove Dr., Key Largo, FL 33037 MM 106.5 305/451-1325
Dive Pennekamp on 1 of 4 cust. boats. NAUI, YMCA, PADI, CMAS.
Instr., air & rentals., grp. & multi-dive disc. pkgs., gifts.

CORAL LAGOON RESORT AT THE DIVING SITE 305/289-0121
Middle Keys, MM 53, 12399 Overseas Hwy., Marathon, FL 33050
Waterfront efficiency cottages, dockage, pool, tennis, bikes.
PADI dive shop, lessons, 3 boats, groups, spring/fall dive pkgs.

DIVE KEY WEST 305/296-3661
"Carol J", P.O. Box 2842, Key West, FL 33045
Disc. room pkg. & grp. rates. Max. 6 divers.
Lobster diving & spearfishing, rentals & air.

FLORIDA KEYS DIVE CENTER 305/852-4599
P.O. Box 391, Tavernier, FL 33070 6 pass. dive boats.
5-STAR facility & dive charters, 4 day instr. & specialties.
Reefs, wrecks, spearfish, Pennekamp & more.

GOLDEN KEY MOTEL 305/664-4418
U.S. Rt. 1, P.O. Box 710, Islamorada, FL 33036 MM 81
Free dockage & boat ramp, waterfront cottage,
rooms with stove & refrigerator, picnic & barbeque area.

HALL'S DIVING CENTER & RESORT 800/331-4255
1688 Overseas Hwy., Marathon, Fla. Keys 33050(in FL) 305/743-5929
Beautiful reef & wreck diving trips-Largest store & instruction.
facility in the Keys–motel/condo diving packages arranged.

HAWK'S CAY RESORT & MARINA US 800/327-7775
MM 61, Marathon, FL 33050 FL 800/432-2242
Tennis, pools, jacuzzis, reef trips, PADI. 305/743-7000
Custom-built dive boats, air/equip. rental, instr., pkg. rates.

HOLIDAY ISLE DIVE CENTER 305/664-4145
P.O. Box 482, Islamorada, FL 33036 MM 84.5 FL 800/432-2875
All new "Wreck Diving" US 800/327-7070
All new 22 passenger dive boat.

KELLY'S MOTEL and MARINA 305/451-1622
On the bay (a very special place). In the heart of the
diving district–just 1 mi. from John Pennekamp's.
Group rates, 3 and 4 specials avail. Efficiency apts.

KEY LARGO–From Studio apt. to 3 bedroom 2½ bath apt.
Tennis, pool, dockage. Close to all dive shops & boat
rentals from $200 per week.
Call 312/357-6285.

KEY LARGO CONDO 305/433-8073
3 BR., 1½ Bath, completely furnished. 305/546-2275
Marina, saunas, tennis, pools, 2 mi. to Pennekamp Park.
Great diving, fishing, sailing. Special summer rates.

KEY LARGO BAYFRONT HOME–Dive/Snorkel/Sail 305/255-4556
P.O. Box 161414, Miami, FL 33116
3 bedrooms/2 bath gorgeous, new lushly landscaped private home
w/dock. Luxuriously furnished, fantastic rates–less than motel room.

KEY LARGO LUXURY CONDO 513/984-0866
Oleinik, 8555 Blue Cut Lane, Cincinnati, OH 45243
Luxuriously decorated, 2 bedroom, dock, pool,
sauna, tennis. Minutes from best dive areas.

KEY WEST DIVER INC.–CAPT. BILLY DEANS 305/294-0660
c/o Reef Raiders Dive Shop, U.S. #1, Stock Isle, Key West, FL
33040. Dive the Sambos, Ten Fathom Ledge, WWII wrecks,
USS Wilkes-Barre. Every dive an adventure.

LADY CYANA DIVERS 305/664-8717
P.O. Box 1157, Islamorada, FL 33036 MM 85.9 800/221-8717
26', 40' & 60' dive boats. Reefs, galleons, wrecks & The 'Eagle'.
Complete pro shop, instruction, packages, photo center.

LOOE KEY RESORT & MARINA 305/872-2215
P.O. Box 509, Ramrod Key, FL 33042 MM27½
40' Glass Bottom Boat, Motel, Restaurant, Dive Shop, Dockage,
Ramp, Pool, Tiki Bar, Diving Inst., Custom Dive & Snorkel Boats.

LOOKOUT LODGE RESORT 301/474-6381
Waterfront efficiencies, beach, boat ramp, docking. Dive
packages. PADI OW/AOW. Rental tanks & Weight belts.
MM 88 between Pennekamp and Islamorada.

PENNEKAMP PARK CONCESSION 305/451-1621
P.O. Box 1560, MM 102.5, Key Largo, FL 33037 FL 800/432-2871
The only dive shop located directly in Pennekamp.
Free brochure, send 50¢ for reef chart.

PLANTATION KEY LARGO LUXURY CONDO 305/852-5748
c/o 195 N. Airport Rd., Tavernier, Florida 33070
Beautiful 1 BR condo (sleeps 4) on bay. Has everything.
Boat ramp & docks. $295/wk. May-Nov., $350/wk. Dec.-Apr.

RENT 20' FLORIDA KEYS DIVE BOAT 305/743-0391
and stay aboard 46' furnished houseboat, color TV,
A/C, sleeps 6. Dive Pennekamp, Looe Key,
Alligator Reef, crystal dive water. $795.00 week.

ROCK REEF RESORT 305/852-2401
P.O. Box 73, Key Largo, FL 33037 MM 98
Divers' Paradise, beach, jacuzzi, packages available,
comfortable accommodations and comfortable prices.

SARASOTA AREA DIVERS 813/792-3324
Fly to the Keys, Marathon, Key West, Bahamas.
Informal flights. Small groups. Call Joe for details.
Any evening between 7 and 9 PM.

SEA DWELLERS SPORTS CENTER 305/451-3640
99850 Overseas Hwy., Key Largo, FL 33037 800/451-3640
Reef trips daily to Pennekamp Underwater State Park.
Dive package with Key Largo Holiday Inn.

SEAFARER RESORT MOTEL 305/852-5349
P.O. Box 185, Key Largo, FL 33037 MM 97.8 (Gulfside)
"Fantasy Island" setting. Real, sandy beach & free paddleboat.
Spotless rooms, effs. & apts. at best dollar value plus group rates!

SEA HORSE MOTEL 305/743-6571
7196 Overseas Highway, Marathon, FL 33051
Budget or waterfront rooms or efficiencies, 300' dockage
ramp, pool, dive pkgs. Experience the American Caribbean.

SEA TRAIL MOTEL 305/852-8001
Rt. 5, P.O. Box 91, Key Largo, FL 33037 MM 98.5
Cable TV, air-conditioned,
refrigerator, budget rates.

STEPHEN FRINK PHOTOGRAPHIC, INC. 305/451-3737
P.O. Box 2720, Key Largo, FL 33037 MM 102.5
Photo Tours, Instruction, Processing,
Camera Rentals, Stock Photos.

THE BOAT, a div. of Triangle Watersports, Inc. 305/745-BOAT
Rt. 2, P.O. Box 617, Summerland, FL 33042
Free color brochure, customized dives, adventure experiences,
instruction, U/W video, Looe Key, Hawks Channel & Gulf.

THE DIVING SITE, INC. US 800/634-3935; FL 800/821-9155
12399 Overseas Hwy., Marathon, FL 33050 MM 53.5
16 & 30 pass. dive boats. Daily reef trips. 305/289-1021
Charters & group rates, PADI lessons, sales, repairs, dive pkgs.

TWIN HARBORS 305/451-1751
103800 Overseas Highway, Key Largo, FL 33037
Motel, Marina, Camping. Dive John Pennekamp State Park. Fishing
at its best. Boat Rntls. Ask for Pkg. Tours. 100% Satisfaction.

GEORGIA

DIVERS SUPPLY 912/474-6790
5208 Mercer Univ. Dr., Macon, GA 31210
PADI training facility, all major brands.
Located at exit 2 on I-475.

DIVING WORLD USA 404/634-4354
2945 Buford Hwy., Atlanta, GA 30329
All brands, wholesale, retail, repair, rental, trips.
YMCA, NAUI, PADI classes. 3 man chamber.

HAWAII

AARON'S DIVE SHOP 808/262-2333
602 Kailua Rd., Kailua, Oahu, HI 96734 808/261-1211
Dive w/the best in HI. Daily dives, 4 day cert. Referrals.
Rntls. complete w/cameras & scooters since '71. Write for info.

ALOHA DIVE SHOP–KOKO MARINA 808/395-5922
Koko Marina Shpg. Ctr., Honolulu, HI 96825 808/395-8882
"Diving is fun" with Jackie and her friends.
Scuba resort cert., boats, tours, sales, rental, all cert.

AQUATIC CHARTERS OF MAUI 808/879-0976
P.O. Box 1028, Puunene, Maui, HI 96784 808/874-0859
Daily dv. Molokini send $29 U/W video of Maui dv. sites and
Molokini Crater. VHS/Beta MC/Visa. PADI Instr. U/W video svs.

AQUATICS KAUAI 808/822-9213
733 Kuhio Hwy., Kapaa, HI 96746
Full service, PADI, NAUI, SSI, U/W video taping & photo.
Custom packages & tours aboard our 38' Wilson.

CENTRAL PACIFIC DIVERS 800/551-6767
780 Front St., Lahaina, Maui, HI 96761 800/661-8718
Maui's most popular dive operator for over 15 years. 2 & 3
tank dives. Two 43' boats. Very experienced staff. Classes.

DIVE KAUAI 808/822-0452
976 Kuhio Hwy., Kapaa, Kauai, Hawaii 96746
Kauai's only PADI 5 Star, Largest sport & commer'l facil., Sales,
rntls., free air, 2 day cert., sml. pers. chtrs., indv./grp. pkgs.

DIVE MAKAI CHARTERS 808/329-2025
P.O. Box 2955 S, Kailua-Kona, HI 96745
Diving with a difference–we care! Write to Tom & Lisa.
Rated Kona's best every year since '76 by Undercurrent.

DIVE MAUI INC. 808/667-2080 or 661-4363
Lahaina Market Pl., Lahaina Luna Rd., Lahaina, Maui, HI 96761
3 Boats Daily to Lanai, Maui, Molokini. Instruction,
rentals, photography, small groups, packages available.

ELITE DIVE HAWAII 808/396-8386
377 Keahole St. #6, Suite 158, Honolulu, HI 96825
Deluxe charters to Hanauma Bay: 30' cust. boat, instr. guides,
hotel pickup, gourmet brkfst. & lunch, 1 trip daily, 6 max.

FATHOM FIVE DIVERS/KAUAI 800/422-DIVE
P.O. Box 907, Koloa, Kauai, HI 96756 808/742-6991
Specializing in small personal charters, daily trips.
NAUI and PADI instruction, air, rentals, photography.

HAWAIIAN WATERCOLORS 808/879-3584
P.O. Box 616, Kihei, Maui, HI 96753
Experts in dive charters, U/W video, U/W photography.
Contact Ed Robinson for information.

KONA COAST DIVERS 808/329-8802
75-5614 Palani Rd., Kailua-Kona, HI 96740 800/KOA-DIVE
Hawaii's only Full On Service Facility. (for boat
RATED #1 by the LOCALS, "Just ask anyone." resv. only)

LAHAINA DIVER'S INC. 800/367-8047 ext. 102
710 Front St., Lahaina, Maui, HI 96761 808/667-7496
Daily trips aboard 2 fastest, most comfortable boats in
Hawaii. Most personable staff. Maui's only PADI 5 Star.

LEEWARD DIVE CENTER 808/696-3414
85-979 Farrington Hwy., Waianae, HI 96792
Full service dive center, NAUI, PADI. Daily charters to
shipwrecks, lavatubes, ledge dive and over 50 different dive locations.

LET'S GO SHORE DIVE'N 808/322-6490
78-6842 Alii Drive #8-102, Kailua-Kona, Hawaii 96740
Twice the fun, half the price! Economical dives mean more dives.
Come as friends, leave as family!

MAUI DIVE SHOP 808/879-3388
Azeka Place–Kihei & Lahaina Cannery–Lahaina
2 Locations on Maui, 5 day class, beginners lessons.
Sales, rentals, air, free dive map, PADI 5 Star.

OCEAN ACTIVITIES CENTER 808/879-4485
3750 Wailea Alanui, D-2, Wailea, HI 96753
Hawaii's only dive lodge: Hotel Lanai.
Daily dives to Molokini, La Perousse, Kahoolawe, Lanai.

OCEAN ADVENTURES, INC. 808/487-9060
98-406, Kam. Hwy., Pearl City, HI 96782
PADI 5 Star instructor development center, diver vehicles, tours,
group pkgs., boat dives, cameras, 3/4 day certs.

SANDWICH ISLE DIVERS 808/329-9188
76-6131 Plumeria Rd., Kailua-Kona, HI 96740
Daily boat charters, maximum 6 divers, night dives, PADI classes.
Packages, combo fish/dive charters avail. Undercurrents choice.

SEA DREAMS HAWAII 800/329-8744
P.O. Box 4886, Kailua-Kona, HI 96745 800/322-6118
Owner operator. Efficient, courteous, conservation minded.
Comfortable custom 6pax dive boat. Bob Curran.

SEA PARADISE, SCUBA 808/322-2500
P.O. Box 5655, Kailua-Kona, HI 96745
Kona's best charter company. Explore reefs, lava tubes & archways.
Our "pampered diver" service will spoil you forever. PADI & NAUI.

SEA SAGE DIVING CENTER 808/822-3841
4-1378 Kuhio Hwy., Kapaa, Kauai, HI 96746
Safely serving Kauai since 1973. Complete pro facility.
Boat/shore trips. Accommodation pkgs. available.

SOUTH SEAS AQUATICS 808/538-3854
1050 Ala Moana Bl., Honolulu, HI 96814 808/538-3856
Dive the Mahi, 165' shipwreck and lava tubes! Daily boat charters.
Full service pro dive store since 1961. Write for free brochure.

THE DIVE SHOP OF KIHEI LTD. 808/879-5172
1975 S. Kihei Rd., Kihei, Maui, HI 96753
Daily Dive & Snorkel trips to Molokini Crater, 4-5 day
Scuba Classes, Windsurfing, Sailing, rentals, full service.

TOUR MASTER ASSOCIATES (Call Collect) 615/482-1645
100 Caldwell Drive, Oak Ridge, TN 37830
Individual & group packages–Maui, Kona, Kauai. Oceanfront condos/
boat & beach diving. Commission and tour leader allowances.

WAIKIKI DIVING, INC. 808/922-7188
420 Nahua St., Honolulu, HI 96815
Waikiki's only pro dive shop. PADI & NAUI facility.
Boat & beach dives, 3 day cert., charters, free brochure.

ILLINOIS

I.I.D. SCUBA SHOP, INC. 312/858-4485
800 Roosevelt Rd., Bldg. D, Glen Ellyn, IL 60137 312/HOW-DIVE
Multi-level training through instructor. Full lines and service,
drive-up air station. SSI, NAUI, PADI, YMCA & Warranty, Travel.

THE BLUE HOLE DIVE SHOP 309/676-1852
4817 Farmington Rd., Peoria, IL 61604
SSI, NAUI, PADI, YMCA & Warranty. Full lines & svs., multi-level trng. through instr., travel, air to 5,000 PSI, comm. dvg. & trng.

THE GEAR BAG, INC. 312/637-FINS
1605 N. Newland, Chicago, IL 60635
Located at 6900 west on North Avenue.
NAUI pro facility & PADI training facility.

INDIANA

SCUBA LAKE MICHIGAN CHARTERS 219/287-2223
Capt. Ernie Piotrowski, 234 N. Albert St., S. Bend, IN 46619
Dive aboard Sea Quest II. Club/shop rates, rentals.
Special Mon.-Fri., 5-tank charters, discount program.

LOUISIANA

SEA HORSE DIVING ACADEMY, INC. 504/246-6523
5400 Crowder Blvd., Unit "E", New Orleans, LA 70127
PADI 5 Star Instructor Development Center, quality instruction, equipment, service and dive travel.

MAINE

AQUA CITY SCUBA, INC. 207/873-0266
11 Water St., Waterville, ME 04901
Sales, in-shop repair service, rentals, NAUI & PADI training facility. Central Maine's largest dive shop.

TOMMY'S DIVE SHOP 207/772-5357
273 Congress St., Portland, ME 04101
North East's largest, known coast to coast, disc. of 25-50% off everyday. Wreck charters, cut this ad out for free airfill.

MARYLAND

BETHANY WATER SPORTS 301/461-DIVE
3220 Corporate Ct., Ste. G, Ellicott City, MD 21043
The complete, professional diving center. Authorized Scubapro dealer.

DIVERS DEN, INC. 301/668-6866
8105 Harford Rd., Baltimore, MD 21234
Maryland's oldest professional dive shop.
Large enough to serve you—Small enough to know you.

PARKS DIVING SUPPLY 301/655-8744
8027 Liberty Road, Baltimore, Maryland 21207
Wholesale and Retail Sport and Commercial Diving Equipment.

TIDEWATER AQUATICS 301/268-1992
1315 Forest Dr., P.O. Box 3361, Annapolis, MD 21403
Full service dive store & authorized Scubapro dealer.
Ocean City, MD wreck diving charter service.

MASSACHUSETTS

AQUARIUS DIVING CENTER, INC. 617/759-DIVE
3239 Cranberry Hwy., Buzzards Bay, MA 02532
Authorized Scubapro dealer. PADI instruction.
Air, sales, full service, rental, dive travel.

CAPE COD DIVERS, INC. 617/432-9035
815 Main St., Harwich Port, MA 02646 MA 800/DIVING-1
Sales, service, air, professional instruction. Open year-round.
2 USCG approved diveboats and captains.

FALL RIVER MARINE SPORTS 617/673-9667
122 Plymouth Ave., Fall River, MA 02721
Monthly scuba classes. PADI—NAUI.
Professional sales & service. Air station & rentals.

NORTHEAST SCUBA 617/777-DIVE
125 Liberty St., Danvers, MA 01923
Scuba instruction, sales, air station, photo courses. Hydro test, regulator repairs, rentals, boat charters. Int'l Dive Travel.

MICHIGAN

DIVER'S DEN 313/693-9801
604 S. Lapeer Rd., Lake Orion, MI 48035
Sales, service, rentals, air, instruction.
Great Lake Charter Specialists.

SCUBA NORTH, INC. 616/947-2520
13258 W. Bayshore Dr., Traverse City, MI 49684
Year-round instruction, dive trips, local charters, rentals, repairs & hydro's, all major brands, pkg. prices.

MINNESOTA

THE SUPERIOR DIVER, INC. 218/728-5877 or 218/475-2550
P.O. Box 388, Grand Portage, MN 55605 Ron & Jackie Polomski
Lake Superior shipwreck diving charters in Isle Royale National Park aboard the 'Superior Diver' & 'Royale Diver'.

MISSOURI

WEST END DIVING CENTERS, INC.
11215 Natural Bridge Rd., Bridgeton, MO 63044 314/731-5003
11004 Manchester Rd., St. Louis, MO 63122 314-822-3005
39 N. Allen, Bonne Terre, MO 63628 314/358-5000

WEST END DIVING'S—BILLION GALLON LAKE RESORT
at Bonne Terre Mine, Bonne Terre, MO 63628 Dive reservations
Fully illuminated underground lake, 1 hour from St. Louis. 70 ft. visibility, 58° water temp. 314/731-5003

NEW JERSEY

CEDAR GROVE DIVERS SUPPLY 201/857-1748
492 Pompton Ave., Rd. 23, Cedar Grove, NJ 07009
National certified instruction, private or group lessons. Indoor heated pool, full service dive shop.

DOSIL'S SPORTS CENTER 201/787-0508
261 Rt. 36, E. Keansburg, NJ 07734
Central New Jersey's largest dive store! Dive travel, rentals, 3,000 psi air, discount prices.

EAST COAST DIVING SERVICE, INC. 201/591-9374
Spring Valley & Texas Rds., Morganville, NJ 07751
NJ's 1st PADI "5" Star training & travel facility. Sales, repairs, air, rentals, trips, full photo. Just off Rts. 9 & 18.

MARLIN SCUBA SHOP 201/327-6000
506 Rt. 17, Ramsey, NJ 07446
Full service PADI training facility.
Indoor heated pool, N.J. wreck dives, dive vacations.

PRINCETON AQUA SPORTS 609/924-4240
306 Alexander St., Princeton, NJ 08540
PADI training facility. Full service dive, snow ski & windsurfing facilities. Diving vacations our specialty.

SKI and SCUBA SPORTS, INCORPORATED 201/666-1323
32 Westwood Ave., Westwood, NJ 07675. New Jersey's Premier Full Service Dive Shop. PADI, NAUI, SSI, CMAS, YMCA. Unique Celebrity Dive Vacations and Club Discounts.

UNDERWATER DISCOVERY, INC. 201/270-9100
2716 Rt. 37 East, Toms River, NJ 08753
Come and see the professionals!
Owned and operated by Commercial Divers.

UNDERWATER SPORTS, INC. 201/843-3340
Rt. 17 S., Rochelle Park, NJ 07662
New Jersey's oldest and largest pro dive shop est. 1955.
Indoor heated pool, nat'l. certification, travel, all srvcs.

WHITEHOUSE AQUATIC CENTER 201/534-4090
Box 97-C, Hwy. #22 West, Whitehouse Station, NJ 08889
Equipment Sales, Service, Rentals, Air.
Private and Group Lessons, Dive Vacations, Wreck Dives.

NEW YORK

AA AQUA-LUNG CENTER, RICHARDS 212/947-5018
233 W. 42nd St., Times Square, New York, NY 10036
Export agent for all major brands. Dive, surf, swim.
Largest all year-round dive shop. Will not be undersold.

ALLEN SPORTS DIVE CENTER 914/235-3430
249 North Ave., New Rochelle, NY 10801
Air, rntls., instr., repairs, hydro, V.I.P., fishing equip.
7 days—Every major prof. dive manuf. discounted. Our 65th year.

AQUA CRAZY HARVEY 718/743-0054
3179 Emmons Ave., Brooklyn, NY 11235
At Sheepshead Bay. Instant refills. Hydro-VIP.
Major brands, big discounts. Since 1953.

ATLANTIS 2 212/924-7556
498 6th Ave., New York, NY 10011
New York's PADI 5 Star facility & Scubapro dealer.
Quality instruction, equipment, service, repair & travel.

CENTRAL SKINDIVERS DISCOUNT CENTERS Open 7 Days
2608 Merrick Rd., Bellmore, NY (indoor pool) 516/826-8888
160-09 Jamaica Ave., Jamaica, NY (our 35th year) 718/739-5772
Discount equipment & lessons, refills, rentals, repairs.

EAST COAST DIVING, INC. 718/979-6056
1500 Hylan Blvd., Staten Island, NY 10305
PADI 5 star facility, Superior Instruction & Equipment.
Personal Dive Trip Planning & Local Wreck Charters.

ISLAND SCUBA CENTERS, INC. 516/546-2030
74 Woodcleft Ave., Freeport, NY 11520
Sales, air, rentals, repairs, waterfront store, travel.
Instruction, photo equip., rentals, Club Aquarius.

KINGS COUNTY DIVERS CORP. 718/648-4232
2417 Avenue U, Brooklyn, NY 11229
Authorized Scubapro dealer. 718/934-4153
Brooklyn's full service pro shop.

NIAGARA SCUBA SPORTS 716/875-6528
2048 Niagara St. (near I-190 & Hertel), Buffalo, NY 14207
Western New York's full service pro dive shop.
PADI 5 Star facility. Scubapro & other major brands.

PAN AQUA DIVING 212/496-2267
166 W. 75th St., New York, NY 10023
On-site air, equipment, rentals, repair—7 days a week.
NAUI, PADI, YMCA: Basic-Instructor. Local, group trips & travel.

PARAGON SPORTS 212/255-8036
18th Street & Broadway, Manhattan, NY 10003
GSD—Sherwood—U.S. Divers.
Poseidon—Henderson—Zeagle—Ikelite—Heuer.

THE WESTCHESTER DIVE CENTERS, INC. 914/937-2685
62 Westchester Ave., Port Chester, NY 10573
Northern Division, Mahopac, NY 10541 914/628-1386
Area's most comprehensive year-round scuba school.

ZODIAC WATCH CO.—FACTORY DIVE WATCH REPAIR CENTER
516 5th Ave., Rm. 303, New York, NY 10036 212/869-8999
Rolex & all brands repaired & pressure tested. Heuer authorized sales and service. Huge discounts. Ron Gordon proprietor.

NORTH CAROLINA

ATLANTIC DIVERS INCORPORATED 919/441-1111
6912 S. Croatan Hwy., P.O. Box 1091, Nags Head, NC 27959
PADI 5 Star Training Facility.
Specialists in Diver Education, Trips, Sales & Service.

EASY STEP CHARTERS/EJW SPORT SHOP 919/247-4725
2204 Arendall St., Morehead City, NC 28557 919/726-2311
Air, Rntls., Repairs, Hydros. Daily walk on charters and grp. rates.
Wreck, deep, boat, Search & Recovery, night specialty courses.

NAGS HEAD PRO DIVE CENTER 919/441-7594
P.O. Box 665, Nags Head, NC 27959
Wreck U-85, schooners, WWII freighters, tankers, aboard Sea Fox. 50' custom boat, PADI instr., sales, svs., rntls., air, 5,000 psi.

OLYMPUS SPORTS INC. 301/474-6381
Pier 8, Morehead City, NC 28557 919/726-9432
Dive the clear warm waters of NC on area's largest dive boat. Groups or individual walk-ons.

SALTSHAKER DIVING SERVICES, INC. 919/726-8852
P.O. Box 275, Morehead City, NC 28557 6 plus divemaster.
Dive over 25 wrecks in our area including the German sub U-352, the U.S. sub USS Tarpon or the luxury steamer SS Proteus.

OHIO

LONG LAKE SCUBA 419/331-3483
3160 Long Rd., Lima, OH 45807
Sales, service.
M-F 12:00 - 7:00, Sat. 9-5, Sun. 12-4.

PENNSYLVANIA

DON COOK'S SCUBA EQUIPMENT 717/326-2091
940 Market St., Williamsport, PA 17701
Air, certified instruction, PADI, sales, service.
PADI training facility, pro dive shop. Closed Wednesday.

DUDAS' DIVING DUDS 215/436-0176
101 Bartrams Lane, West Chester, PA 19382
Full service NAUI pro facility. PA's largest selection of wet & dry suits. Full line of photo equip. Wreck & southern dive trips.

HARRISBURG SCUBA CENTER, INC. 717/561-0517
991-A Peiffers Lane, Harrisburg, PA 17109
5 PADI certified instructors, sales, service, rentals, air, dive trips. PADI training facility. Weekdays 6 PM-9 PM, Sat. 9-5.

JOLLY ROGER DIVE SHOP, INC. 717/866-5535
Rd. #1, Millardsville Rd., Richland, PA 17087-0250
Full service, Air, Sales, Trips, Rentals.
Certified Inst. diving at shop location.

PITTSBURGH SCUBA 412/621-9900
314 North Craig St., Pittsburgh (Oakland), PA 15213
Equip. sales, rntls., repairs, air, trav., instr. at all levels.
Full service PADI Training Facility. Wkdys. 10 AM-7 PM, Sat. 10-5.

SMOKEY'S DIVER'S DEN 717/393-5333
412 N. Duke St., Lancaster, PA 17602
Certified instruction, rentals, sales, service. U/W films 3 videotapes. Programs for schools, clubs & organizations.

RHODE ISLAND

DIVERS WORLD (DIV. OF ALPINE) 401/849-3330
754 Main St., E. Greenwich, RI; 100 Main St., Westerly, RI & Bellevue Plaza, Newport, RI. Comp. sls. & svs. Disc. prices, all top brands. Low rates on lessons. RI's most comp. dv. shop.

VIKING DIVE SHOP 401/847-4179
124 E. Main Rd., Newport, RI 02840; Rt. 138
Air, sales, rentals, repairs, hydros, instruction. Wet and dry suits repaired and altered. Serving divers over 21 yrs.

TENNESSEE

SKI/SCUBA CENTER, INC. 615/523-9177
3511 Sutherland Avenue, Knoxville, Tennessee 37919
Air, rental, repair, training, trips. Scubapro, U.S.D., Seatec, Fathom. Mon.-Sat. 10-6 full service snow ski store.

TEXAS

AQUAVENTURES-HOUSTON US 1-800/468-6224
1614 Gessner Dr., Houston, TX 77080 TX 713/468-6211
Our 10th year! PADI 5 Star Instructor Development Center. Sport & Commercial Students Welcome! Friendly Sales, Travel, & Svs.

ARLINGTON SCUBA CENTER, INC. 817/265-6712
2414 W. Park Row Dr., Arlington, TX 76013
PADI 5 Star training, air, sales, rental, repair, trips.
Most complete pro service in North Texas.

SCUBA AIR COMPRESSOR SERVICE, INC. 214/661-8695
14055 Proton Rd., Dallas, TX 75244
New/used high PSI compressors.
Sales, service, overhaul, parts, rentals.

W.W. DIVING COMPANY 713/540-1616
1420 FM 1960 Bypass, East Humble, Texas 77338
Full service dive shop specializing in repair.
NAUI and SSI training facilities. Trips available.

UTAH

THUNDER ISLAND DIVERS 801/968-9600
2520 West 4700 South, Salt Lake City, Utah 84118
PADI Instructor Training. Regular Trips.
Call for dates.

VIRGINIA

SEA VENTURES, INC. 703/425-7676
Pickett Shopping Center, 9444 Main St., Fairfax, VA 22031
Northern VA's complete dive shop. Open daily.
Trips, instruction, sales, rentals, repairs. NAUI, YMCA, & PADI.

"THE" DIVE SHOP 703/698-7220
2841 Rogers Dr., Falls Church, VA 22042
PADI 5 Star INSTRUCTOR DEVELOPMENT CENTER,
full service serving Washington, D.C. metro area.

THE WET ONES, INC. 703/938-1111
163 Glyndon St., Vienna, VA 22180
N. VA's oldest PADI 5 Star facility, instr. all levels,
sales & service, grp. & indiv. trips, photography.

WEST VIRGINIA

HUNTINGTON SPORT & COMMERCIAL DIVING CENTER
3234 Woodland Drive, Huntington, WV 25705 304/529-6622
Largest shop in West Virginia.
Ask for Charley. 304/736-3861

WISCONSIN

3 LITTLE DEVILS SCUBA SHOP 608/356-5866
Rt. 4, Hwy. 123, Baraboo, WI 53913 800/356-9016 & 9017
North entrance to Devil's Lake State Park. PADI 5 Star Instructor facility, Lake Superior & West Palm Beach charter boat.

CANADA

BEACH GARDENS DIVING RESORT LTD. 604/485-6267
7074 Westminster Ave., Powell River, B.C., Canada V8A 1C5
Dive the Emerald Sea with Jim Willoughby–Diving Director.
Charter boats, group rates, air, U/W guides.

OCEANER RECREATION LTD. 604/738-6811
995 W. 22nd Ave., Vancouver, B.C. V5Z 2A2
Charters, 1-10 days. Incl. air, sls., rntl., dvg., exploring.
U/W photo, wrecks, Vancouver, Port Hardy, Queen Charlotte Is.

TRAVEL SPORTS EQUIPMENT & SCUBA SCHOOL 519/434-2611
Wharncliffe Rd. N., London, Ontario, Canada N6H 2A5
Tabata, Seatec, Dacor, Fitzwright, Mares, Sherwood, Yamaha, Zodiac. Retail @ Caselot wholesale, catalog. Visa, M/C.

AUSTRALIA

AQUARIUS DIVE TRAVEL AUSTRALIA Ph.: Int. + (03) 25 8863
40-42 Taylor St., Ashburton, Vic 3147, Australia, Tlx: 35411
Agents–Barrier Reef dive boats, islands; other Aussie sites.
Also New Guinea, Solomons, Vanuatu, Fiji. Contact for details.

AUSTRALIA-BARRIER REEF & CORAL SEA Ph.: Int. +61-77-723022
Mike Ball Watersports, 252 Walker St., Townsville, QLD. 4810
Best dive value, incredible Yongala Wreck. Dive training centre. Free info booklet. Write, phone or Tlx: 47320 Today!

CORAL SEA DIVING SERVICES Ph. Int. +61-70-985254
The Pier (P.O. Box 122), Port Douglas, QLD. 4871 Tlx: AA46118
Best Tropical Diving on the true Outer Great Barrier Reef.
New 58' Custom Dive Boat (26 knots +). Pro facil. exc. dive pkgs.

DIVE AUSTRALIA/PAPUA NEW GUINEA 415/434-3400
Reef Explorer, Auriga Bay, Scheherazade, Water-Sport, Divemaster, Challenger; Plus Island Resorts!
50 Francisco St., 205A, San Francisco, CA 94133.

GREAT BARRIER REEF AND CORAL SEA +61-70-514055
Going Places, 26 Abbott St., Cairns, Qld. 4870 Tlx: AA48338
Adventure travel specialists to Australia & New Guinea. Over 20 dive boats & island dives from day trips to extended charters.

M.V. BALI-HAI II Ph.: 011 61 070 545545
P.O. Box 692, Cairns, Nth. Qld., Australia 4870
Dive Cod Hole, Ribbon Reef, Lizard Is., 150 mi. of outer reef.
7 & 10 day sched. depart., for indiv., groups & spcl. chtr.

PERTH DIVING ACADEMY (09) 344-7844
281 Wanneroo Rd., Nollamara, Western Australia
Dive trips to Rottnest Is., FAUI Inst. Sales, service and charters. Open 8:30-6:00 7 days a week.

PRODIVE CAIRNS 07/519915
P.O. Box 5551, Cairns, Aust. 4870
2 70 ft. boats-o/n trips 3x/week to outer reefs.
Barrier Reef Trip Specialists, PADI inst. & specialties.

BAHAMAS

BAHAMIAN BRILLIANT CORAL REEFS–MAGNIFICENT MARINE LIFE
Explore Tropical Reefs in Clean Crystal Clear Waters
Deluxe Private Villas–Treasure Cay–Abaco FL 813/934-0770
2 bdrm. $630 per wk.–1 bdrm. $525 per wk. FL 813/786-6474

CORAL HARBOR DIVERS 809/326-4171 In Nassau 6-4171 or 77862
P.O. Box SS 5635, Nassau, Bahamas
"Stage pass to underwater film. Famous movie sites and tongue of the ocean walls. Daily pick up from all hotels."

FREEPORT/LUCAYA–WATER'S EDGE RESORT & MARINA
Omni Solo Assoc., 53 Water St., S. Norwalk, CT 06854 203/852-9300
Luxury Condos Fully Furnished w/Terraces. Discount on nearby UNEXSO rates–Studio–$300/wk., 1 BR-$400, 2 BR/2B-$500/wk.

SMUGGLER'S REST DIVE RESORT 800/328-8029 ext. 246
P.O. Box N-8050, Nassau, Bahamas 809/326-1143
Discover southern New Providence diving. Wrecks, reefs, walls. Daily pick-ups from all hotels, 4 secluded waterside villas.

UNDERWATER EXPLORERS SOCIETY–UNEXSO (809) 373-1244
P.O. Box F-2433, Freeport, Bahamas Toll Free 1-800-992-DIVE
Famous facil., guided reef trips, instruction; FL (305) 761-7679 group rates, 18' deep tank, chamber, air. Great Packages!

VALENTINE'S DIVE CENTER U.S. 502/897-6481
P.O. Box 1, Harbour Island, Bahamas
AM, PM, & Night Dives. All levels of instruction. Rentals.
U/W Photography & Video, Individual & Group Packages.

WALKER'S CAY HOTEL & MARINA, ABACO 800/327-3714
700 S.W. 34th St., Ft. Lauderdale, FL 33315 FL 800/432-2092
Undiscovered & unspoiled! Virgin reefs, spectacular caves.
Dive shop, boats, rental equipment, certification, great packages!

BARBADOS

DIVE BOAT SAFARI 809/429-8216; 809/427-4350; 800/445-8667
Hilton International Barbados, Needhams Point, Barbados
Diving school PADI & NAUI instr., sales, reef, wreck, night dives (Right at hotel) Full service operation, USA & CAN Hrs.

PETER HUGHES U/W BARBADOS 800/367-3484; 607/277-3484
Divi Southwinds Beach Hotel & Divi St. James Beach Resort.
Peter Hughes Diving/Divi Hotels, 520 W. State St., Ithaca, NY 14850
Cmpl. Dv. shop/xprt instr./Photo/cust. boats/vac. dv. pkgs. avail.

SCUBA DIVE RENTALS RENTALS 809/426-6936
Barbados Hilton Hotel (Arcade) Amer. Ex., Visa, M/C
Air & rentals, 7 days a week, year-round, Sherwood sales & service.
e.g.: Comp. equip. set, 24 hrs. $25 U.S., additional fill $2 U.S.

THE DIVE SHOP LTD. 809/426-9947
P.O. Box 44-B, St. Michael, Barbados, W.I.
Daily dive trips. Reef, wrecks and artifact dives.
Dive packages with accommodations. NAUI certification.

BELIZE

AMBERGRIS LODGE U.S. Tel: (816) 361-2345
Ambergris Caye, Belize. P.O. Box 123, K.C., MO 64141
Caribbean Sampler: 4 da-3 nt. full Amer. Plan w/airport trans.: $198 p.p. dbl. occ., group rates, diving and fishing options.

OUT ISLAND DIVERS 800/826-9834; 303/449-8606
Boulder Scuba Tours, 1737 15th St., Boulder, CO 80302
Ambergris-based resort, dive safaris, live aboard, Blue Hole pkgs. on Reef Roamer II, Celestial. Groups welcome!

SAINT GEORGE'S LODGE, Box 625, Belize City 011-501-02-44190
"the place to stay in Belize." TX 214/341-5577; 800/631-0032
"Surpasses Cayman" *Undercurrent.* CA 714/955-2774; 800/854-9303
NAUI dream resort certifications. CA 800/262-6670; 800/821-6670

VILLA AVENTURA–A DIVER'S VILLAGE AT CAYE CAULKER
P.O. Box 2664, Evergreen, CO 80439. 303/674-9615
Complete dive services and accommodations for groups and individuals. 800/538-6802

BERMUDA

SKINDIVING ADVENTURES 809/294-1034
P.O. Box 165, Southampton, Bermuda.
PADI, NAUI, SSI Facilities.
Wreck and reef dives, rentals, sales, instruction, Nikonos.

SOUTH SIDE SCUBA LTD. 809/298-1833
Box HM 1606, Hamilton, Bermuda HMGX 809/293-2915
2 Locations, 2 Custom Dive Boats, 2 Tank Dives,
Night Dives, Experienced Divers/Beginners/Photo.

BONAIRE

BONAIRE–BACHELOR'S BEACH APARTMENTS 202/338-0690
Enjoy beauty above and below water from our private patio pier. Dive in luxury yet inexpensively. Furnished 1 & 2 BR w/ac.
c/o 4622 Charleston Terr., N.W., Washington, DC 20007.

BONAIRE BEACH BUNGALOWS 717/586-9230
P.O. Box 264, Waverly, PA 18471
Luxurious 2 BR villas, A/C, kit., fully equipped, diving, 3 min. from downtown, 15 feet from ocean, total privacy, reasonable rates.

BONAIRE CLUB FLAMINGO. New/Mdrn./Best on islnd. 212/734-2421
Eff. apts. sleeps 4, w/maid service. $450/week. Disc. air $419.
A Peter Hughes Dive Operation. Further discounts for groups.
Michael Reed, 300 E. 71st St., #14M, New York, NY 10021.

BONAIRE–OCEANFRONT HOUSE FOR RENT 914/271-4649
Beautiful 3 BR on Caribbean, $1200/wk. high season; $800 low.
Dive packages w/Bruce Bowker or Peter Hughes. Also discount air.
Ed Fladung, 7 King St., Croton-on-Hudson, NY 10520

Bruce Bowker's CARIB INN 011-599-7-8819
P.O. Box 68, Bonaire, Netherlands Antilles
Largest selection of sites, reef trips, air, sales, rentals, full SCUBA instruction, Spacious rooms, ocean view, a/c, pool.

CAS DE SHEIK, Belnem, Bonaire. Elegant, luxury seaside private house, w/priv. beach. 4 BR, 2 bath, full A/C, Maid svs. Per Night: 1-4 pp, $120; 5-8 pp, $200. Reserve by mail, 2 wks. in adv. w/check for 3 nights deposit thru: E. Gilhuys, Antriol 263B, Bonaire, N.A.

PETER HUGHES DIVE BONAIRE 800/367-3484, 607/277-3484
Divi Flamingo Beach Hotel & Casino–Peter Hughes Diving/
Divi Hotels, 520 W. State St., Ithaca, NY 14850. World's premier dive operation. Instr./2 dive piers/compl. photo/10 dive boats.

SAND DOLLAR & PHOTO 609/298-3844
c/o 50 Georgetown Rd., Bordentown, NJ 08505
Full service dive & photo with Andre Nahr. U/W video, beachfront unit, full kitchen, A/C PADI Instruction.

SOROBON BEACH RESORT 011-599-7-8080
P.O. Box 14, Bonaire, Netherlands Antilles Tlx.: 1200 inpo
Cottages on private nude beach, restaurant, windsurfing, sailing. Studios, one-bedroom units, dive packs from $135.00.

TOUCH THE SEA with DEE SCARR 011-599-7-8529
c/o Touch the Sea, P.O. Box 369, Bonaire, Netherlands Antilles
Personalized dive guiding, marine creatures, photos, much more. Reservations recommended. (Closed July thru October).

BRAZIL

KARIMAR–DIVE BRASIL (0132) 34-6929
R. Amador Bueno, 73, Santos, Sao Paulo, Brazil Tlx: 1124789
Sales, rentals, service, air, professional instruction
Specialist in weekend dive trips to Sao Paulo area islands.

BRITISH VIRGIN ISLANDS

AQUATIC CENTRES (DIV. OF BASKIN IN THE SUN) 800/345-6296
P.O. Box 108, Tortola, B.V.I. Alan Baskin & Eva Cope 809/494-2858
PADI Trng. Facil., Hotels-Prospect Reef, Treasure Isle & Peter Isld.
Prsnl. svs. designed to spoil you . . . FANTASTIC! (Rhone & Reefs)

BLUE WATER DIVERS 809/494-2847
P.O. Box 437, Road Town, Tortola, B.V.I.
Mike & Keith Royle–PADI Instructors. Dive tours, intro courses, rentals, air fills, equipment rentals.

KILBRIDES UNDERWATER TOURS 809/494-2746
P.O. Box 40, Dept. SDM, Virgin Gorda, British Virgin Islands
Daily dive tours and resort courses. Wrecks of Anegada.
Bert, Jim & Gary Kilbride. PADI training facilities.

UNDERWATER SAFARIS 809/494-3235
P.O. Box 139, Tortola, B.V.I. 800/535-7289
Rhone and reef dives daily, PADI training facility, 809/494-3965
sales, rental, photo center, hotel dive/sail packages.

VIRGIN ISLAND SAILING LTD. 800/648-3393 800/448-8866
P.O. Box 146, Road Town, Tortola, B.V.I. 809/494-2774
Sail & dive pkgs. aboard pvt. motor & sailing yachts. Taking 2-18 guests. Scuba, sail, surf, ski in unspoiled waters.

CARIBBEAN

AQUARIUM DIVE RESORT (811) 6649 or 6378
P.O. Box 1692, San Andres Isla, Colombia Tlx: 40126
Guided U/W tours, air, rentals, instruction.
PADI, CMAS, FEDECAS. Pablo Montoya, Diving Operator.

DIVE AID–UNIQUE FIRST AID KIT 512/357-6632
Be prepared . . . emergency care for Caribbean divers!
Treatment for contact with venomous marine life:
Fire Corals, Jellyfish, Anemones, Urchins, Fireworms, etc.

DIVER'S DEN DOMINICANO 809/529-4459
P.O. Box 687, San Pedro de Macoris, Dominican Republic
PADI Training Facility, daily guided U/W tours, sales, service, air, photo, rentals, bed & breakfast packages available.

TOBAGO SCUBA LTD. (809) 639-4360
Jane Boyle, Speyside, Tobago Rep. Trinidad & Tobago
Guides to exciting drifts or leisurely photo dives from boat. NAUI, CMAS. Exceptional U/W diversity.

CAYMAN ISLANDS

BRAC REEF BEACH RESORT–CAYMAN BRAC 800/233-8880
Brac Aquatics, Ltd. 800/327-3835
5920 Rodman St., Hollywood, FL 33023
3 tank dives, Little Cayman trips.

BUCCANEERS' INN 1-(809) 94-87257
P.O. Box 68, Cayman Brac, Cayman Islands, B.W.I.
Daily boat dives, only hotel with shore diving, group specials.

CAYMAN DIVING LODGE (800) 262-7686
P.O. Box 11, East End, Grand Cayman, B.W.I.
The perfect alternative to Seven Mile Beach for wilderness diving walls, wrecks and reefs–Call DIRECT.

CAYMAN ISLANDER HOTEL–GRAND CAYMAN USA 800/922-7555
Bob Soto's Diving Ltd. Local 305/981-7555; FLA 800/423-7555
5821 Hollywood Blvd., Suite 203, Hollywood, FL 33021
Wall, reefs and wreck diving package available.

CAYMAN RENT-A-VILLAS/RIVERS SPORT DIV. LTD. 809/947-4144
P.O. Box 681, Grand Cayman, B.W.I. Dive from the comfort of a private home, condo, or hotel of your choice. 1 wk. dive pkg. from US $365 p.p. Small dive grps. aboard Blue Horizon, 34 ft. flattop.

CRITTER CORRALER/Instr. known for handling sea critters, will share lux. acc. $600 Cl/wk. dbl. occ. Incl. prsnl. U/W video, 2 advan. cert., 2 guided nt. dvs. Video descr. $25 Cl. Compl. dv. svs. avail. Alan Kindree c/o Dive Shop, P.O. 746, Grand Cayman, BWI.

DIVER'S WORLD, LTD. OF CAYMAN 809/949-8128
Seven Mile Shopping Ctr., P.O. Box 917, Grand Cayman, B.W.I.
Diving equipment & supplies, sales, service, repairs & rentals.
PADI certification dives. U/W photo. Supplies & camera rntls.

PETER HUGHES DIVE TIARA 800/367-3484; 607/277-3484
Divi Tiara Beach Hotel, Cayman Brac–Peter Hughes Diving/
Divi Hotels, 520 W. State St., Ithaca, NY 14850. Secluded. Modern facil./Instr./Cust. dv. boats/personalized svs. All-inclusive pkgs.

PIRATES POINT RESORT, Little Cayman, B.W.I.
New ownership, gourmet chef, new boats and equipment.
All inclusive pkg., unlimited dvg. $145/day p.p./dbl. occ.
U/W videos. Direct booking, 809/948-4210.

SAM McCOY'S–Little Cayman 800/843-2177
Fully A/C rooms, 3 meals daily–$125/day. 412/834-4064
Virgin reefs, wrecks and the finest shelf diving in the world.

SCUBA SAFARI–Dive Pkg. $399/7th free/Flat Discs. 809/949-3742
P.O. Box 2029, Grand Cayman, BWI. Pvt. dvg. tailored to you. 6 guides. Your own homes–Lodge near world's best bchs. Fun intros. U/W veh's. U/W videos of you–show fam./friends w/VCR on TV.

FAR PACIFIC

BANDO SPORTS–NAUI PRO FACILITY 752-1424
46-27 Nam Chang 3KA, Jung Ku, Seoul, Korea
Basic thru NAUI Instructor train' course.
Name brand eq., sales, air, services, tours, rentals.

DIVE PHILIPPINES, THAILAND, MALAYSIA 415/434-3400
Superb live-aboard dive cruises; 2-20 divers.
U.S. agent for local dive operators.
50 Francisco St., 205A, San Francisco, CA 94133.

MACK'S DIVING OF JAPAN
2-18-34 Nishiki, Naka, Nagoya 460, Japan 052-211-1772
Full service diving system, U/W photo specialist.
PADI training facility. Pool/shop.

SEA TOPIA PRO DIVING CENTER, INC. 09889-2-5567
593 Isa, Ginowan City, Okinawa, Japan
Custom made wet suits, PADI instruction.
Sales, repair, 3,000 psi air station, indoor pool.

FIJI

BEQA DIVERS FIJI Tel: 361088 or 361241
GPO Box 777, Suva, Fiji. Tlx. FJ2430. Cables DIVEFIJI
Daytrips to many famous sites on new catamaran. Choose hotel, villas, apartments or dorm. PADI Training Fac.

FIJI DIVING SPECIALISTS 800/247-3483
Groups/individuals, 13 yrs. exp. 206/441-3483
U.S. office for Taveuni, Maravu, Qamea, Namale & More.
170 Denny Way Seattle, WA 98109

GREAT BRITAIN

SCAPA FLOW–Dive Away, Inc. 201/757-6792
P.O. Box 6261, Plainfield, NJ 07062-0261
Dive WW I German Navy: 3 Battleships, 4 light battle cruisers.
Hotel, dive boats, group tours arranged.

SCILLY ISLES–Dive Away, Inc. 201/757-6792
P.O. Box 6261, Plainfield, NJ 07062-0621
Dive the Treasure Wrecks; H.M.S. Assoc., Hollandia, Princess-Maria. Guest house, dive boats, individ. & group tours arranged.

HONDURAS

ANTHONY'S KEY RESORT–ROATAN BAY ISLANDS U.S.A. Exec. & Reserv. Office: Nat'l 800/227-DIVE FL 800/343-DIVE or
1385 Coral Way, Ste. 302, Miami, FL 33145 305/858-DIVE
The Western Caribbean's most popular dive resort w/photo fac.

BAY ISLANDS DIVE RESORTS 800/328-0734
Go Diving: 715 Florida Ave. S, Minneapolis, MN 55426
Dive packages to resorts in Roatan and Guanaja.
Barrier reefs, walls, snorkeling, windsurfing, sailing.

BEACH HOUSE RENTAL–ROATAN ISLAND 615/535-2032
660 Oak Shadow Drive, New Johnsonville, TN 37134
Near Anthony's Key Resort. 2 BR dlx., maid, private bch., scuba, snorkel, 4 persons, $450/wk. Brochure, Rsvns. Video avail.

COCO VIEW RESORT–ROATAN 800/282-8932
P.O. Box 877, San Antonio, FL 34266 904/588-4131
$450/7 nights. Unlimited wall diving guaranteed 365 days a year! All meals. Live aboard dive boat now available.

ISLAND HOME . . . COME BE OUR GUEST (512) 863-9079 collect.
Darrel & Marla Rea, 114 Oak Ridge Cir., Georgetown, TX 78628
Our cay is a living reef. Sunken ship off dock. Unlimited dvs./personalized svs. Boats avail. $350/7 nights. All meals.

REEF HOUSE RESORT–ROATAN, HONDURAS
P.O. Box 640399, Kenner, LA 70064 Toll free 800/341-1950 ext. 73
Built on top of reef, intimate accom. up to 30, excellent food.
7 days, meals, unltd. diving, fishing, sailing, boats, guides: $499.

INDIAN OCEAN

BALI–HOTEL BUALU NUSA DUA (HOTEL CLUB) (0361) 71310
P.O. Box 217, Denpasar, Bali, Indonesia Tlx: 35231 BUALU ND
1st class resort, PADI instr., dive boat, shop, dive tours Bali
All sport free o.c. Tennis, horses, windsurf., sail, bicycles.

JAKARTA DIVE SCHOOL & PRO SHOP 21-583051 x9008
Jakarta Hilton Hotel, P.O. Box 3315, Indonesia 21-587981 x9010
PADI training facility, sales of most major brands. Rentals, air/svs./repair. Resort & local trips. Tlx: 46673/46698.

MALDIVES DIVERS SERVICE 800/225-2380
c/o Himalayan Travel, Inc., Box 481-SD, Greenwich, CT 06836
Ultimate atoll/reef diving in an Indian Ocean paradise. 15 days from $2395. incl. airfare ex NY. Free brochures & info.

JAMAICA

CLUB CARIBBEAN/SUNDIVERS 809/973-3507; 800/221-4588
P.O. Box 65, Runaway Bay, Jamaica, West Indies
Hotel cottages–Runaway Bay, Jamaica's finest diving, 1,000 ft. bch. free skiing, windsurfing, sailing, snorkeling, glassbottom boat.

NEGRIL SCUBA CENTRE 809/957-4323
Negril Beach Club, Negril Jamaica West Indies
Beginner lesson, dive packages, certification, camera rental.
Beautiful, exciting daily dives with qualified instructor.

SUNDIVERS, JAMAICA LIMITED 809/973-2346
P.O. Box 212, Runaway Bay, Jamaica, West Indies 809/973-3454
Jamaica's only 5 Star PADI int'l training facility.
Sales & svs., camera rentals, videos, resort dive pkgs.

MEDITERRANEAN

CYDIVE CYPRUS 061-34271
1 Poseidon Ave., Kato Paphos, Cyprus Tlx: 5337CY
PADI 5 Star & BSAC Recog. courses to all levels.
Dive trips. Hire. Comp. price sales.

DIVEWISE SERVICES, LTD. Ph: 336441
Dragonara Water Sport Centre, St. Julians, Malta
The friendly dive company. Reliable and personalized. CMAS & PADI. Full beach club facility, sailing, windsurfing, etc.

MEXICO

AA1 SCUBA CANCUN 988/4-23-36 & 3-10-11
P.O. Box 517, Cancun, Quintana Roo., Mexico 77500
Ex com. & military diver–owner 30+ yrs. dvg. exp. NAUI, CMAS, PADI Master instr./intl. training facil. Tours, classes, referrals.

AAA AQUA TOURS 52(988)30400
P.O. Box 528, Cancun, Q. Roo, Mexico 77500 31137 or 30227
DIVE MEXICAN CARIBBEAN. Daily trips ISLA MUJERES & COZUMEL. Instruction, rentals, packages and group rates.

A COZUMEL CONNECTION 1-800/433-0099
P.O. Box 890464, Houston, TX 77289 713/621-1596
Direct link to Cozumel. Reliable. Daily fast boat dive trips. PADI & SSI cert. course. Full travel services.

AKUMAL DIVE SHOP–4 Instructors PADI/NAUI/SSI certs & 10 specialties. Full service center 13 years on the Mexican Caribbean. Rentals, photo, trips, snorkeling, fishing.
Dick Blanchard, Postal 1345, Cancun, Q. Roo, Mexico 77500.

AQUA SAFARI Since 1966 (987) 20101; (713) 448-3483
P.O. Box 41, Cozumel, Mex. 77600 (800) 854-9334
Custom 38' dive boats–private dock.
Repair center–PADI International Training Facility.

BAJA diving, FANTASIA DIVERS 800-336-DIVE; TX 713-558-9524
Dive &/or hotel accommodations. Complete new watersport facility specializing in scuba, snorkel, fishing and sailing. Experienced PADI & NAUI Instructors. Call for brochures and reservations.

BAJA EXPEDITIONS, INC. 619/297-0506
P.O. Box 3725, San Diego, CA 92103
Join us aboard the DON JOSE and BAJA EXPLORADOR for exciting Sea of Cortez Diving adventures.

BAJA'S ONLY NAUI PRO FACILITY/WATERSPORTS CENTER
Cabo Acuadeportes S.A. de C.V. (684) 3-06-64 or 3-06-65
P.O. Box 136, Cabo San Lucas, B.C.S., Mexico
Rentals-Sales-Service-4,000 psi-Boat Dives-Instruction.

BOOK DIRECT WITH REPS
Lowest cost dive packages. La Ceiba, La Perla, Barracuda, Galapago Inn & La Plaza hotels. 13 yrs. Cozumel exp. Full-time Cozumel on-site rep. USA office: Wash. 206/441-3483 or Nat'l 800/247-3483.

CASA DEL MAR DE ZIHUATANEJO (743) 4-21-19
Paseo del Pescador #20, Local 6, Zihuatanejo, Gro.
Dive the Pacific in Ixtapa, Zihuatanejo. Full dvg. svs. Cert. instr., U/W photo., snorkeling, SCUBA lessons, air, rntl., spec. trips.

CEDAM DIVE CENTER at AVENTURAS AKUMAL 800/468-6224
Mexico's only PADI Five Star Training Facility. Daily reef dives, PADI Certifications, Specialties, Cenotes, and Fun!! Mike & Kathy Madden/Apartado Postal 1341 Cancun, Q. Roo, Mexico 77500.

CLUB AKUMAL CARIBE HOTEL US 800/351-1622
P.O. Box 1976, El Paso, TX 79950 TX 915/584-3552
PADI certs., uncrowded diving, bilingual dive pkg. w/meals, hotel incl. from $51.50/day/person, rentals, 60 miles south of Cancun.

CLUB AKUMAL CARIBE–KAPAALUA DIVING CENTER–English, Spanish, German spoken. Dive pkg. w/meals & hotel incl. from $52.00/day/person. Equipment rentals, Deep Sea Fishing, Diving trips to Cozumel, Snorkeling Tours, Kayaks, Windsurfing.

CLUB AKUMAL CARIBE–Paul Bush, founder–CEDAM International Headquarters since 1958. Best diving in Mexican Caribbean, 5 min. to 2nd largest Barrier Reef in the world. KAPAALUA DIVING CTR., hotel, real estate, condos, time sharing, excellent food.

COZUMEL HOUSES FOR RENT 212/254-5623
Luxury beach front house. Private beach. Maid/4 BR. Fully furnished and A/C. $1850/week Winter/Spring. $1250 Summer/Fall. Houses in town from $300. Dive packages.

COZUMEL/NEPTUNO DIVERS DIVE PACKAGE 212/254-5623
From $300. Incl. 7 nts. House/w/car or hotel. For 2 tank boat. Dives. W. beach lunch. 1 nt. dive. Wts., bkpk. guide. Unlimited tanks. Free disco. CASA COZUMEL, 632 E. 14th St., NY, NY 10009.

DISCOVER COZUMEL DIVING (011-52-987) 2-02-80
P.O. Box 75, Cozumel, Q. Roo, Mexico 77600
UNLIMITED Scuba Diving services. Super hotel & dive pkgs. For Info: in USA, contact BILL (503-726-8879), Oregon.

DIVE PARADISE–COZUMEL The Best There Is!
Personal service like you never dreamed possible in Mexico.
For a wealth of free info and reservations call our USA Office (206) 441-3483 or write 170 Denny Way, Seattle, WA 98109.

DIVERS PARADISE. CLub Akumal Caribe. 312/438-8420
Furnished bungalow, sleeps six. 20' from beach.
Maid service. Available December 14th thru December 28th, 1986.
14 days $1,400.00. Sale also possible.

FLASH CAMERA SHOP (987) 2-02-80
P.O. Box 268, Cozumel, Q. Roo, Mexico 77600
Underwater cameras for rent. Film sales & processing service. Dive equip. for rent/sale. Weekly rates.

GALAPAGO INN/SCUBA COZUMEL (011-52) (987) 20663/20627
P.O. Box 289, Cozumel, Q. Roo, Mexico 77600. U.S. 800/847-5708
Beachfront dive resort, complete facilities with a professional staff. 15 years experience catering to the serious diver.

HOUSE FOR RENT–COZUMEL 303/442-0258
Rex Walker, 3100 Airport Road, Boulder, CO 80301
3 bedroom houses, one bedroom cottages, luxury furnished
from $200/week, maids, A/C/car, scuba guide.

LORETO DIVERS (683) 3 00 29
Salvatierra 47 Loreto, P.O. Box 131, Baja, California Sur, Mexico
Guided scuba & snorkel tours. Instr. Full equip. rental
& sales. Fills 3,000 psi. Dive beautiful secluded islands.

MARISLA II, LA PAZ, B.C. 619/755-0375
13035 Via Grimaldi, Del Mar, CA 92014
Luxury diving in the Sea of Cortez (see Dec. '85 Undercurrent).
Unlimited diving aboard 121' ship, 8 dbl. staterooms, xlnt. food.

MULEGE DIVERS
Madero #45, Mulege, Baja, California Sur, Mexico
Guided underwater tours, air, service, equipment
rental and sales. PADI certification classes.

PLAYA MAYA DIVERS, in Cozumel (987-21615 MEX)
Fast boats–Custom dives–Airport hosting. Total packages:
Air–Selected hotels–Diving–Optionals. (800-348-9101 US)
U.S. Rep.: Fantasia Dive & Travel® (504-899-8687 LA)

TONY TATE'S COZUMEL UNDERWATER VIDEO SERVICE
P.O. Box 30, Cozumel, Q. Roo, Mexico DIVERS! What's the
best souvenir from Cozumel? An U/W Video of your dives. Call for
demos. & appts. U/W video camera rentals available. (987) 2-14-44.

MICRONESIA

BLUE LAGOON DIVE SHOP (796)
P.O. Box 429, Truk Lagoon, E. Caroline Islands 96942
Dive into WWII history of Operation
Hailstorm.

BOOK DIRECT WITH REPS.
Custom packages to Truk, Palau & Ponape. Indiv. & Group packages.
We handle air, hotels, diving, transfers, etc. Phone USA office
at Wash. 206/441-3483 or Nat'l 800/247-3843.

DIVE TRUK and/or PALAU 415/434-3400
Superb live-aboard or hotel-based dive adventures.
U.S. agent designs your special tour.
50 Francisco St, 205A, San Francisco, CA 94133

MICRONESIA AQUATICS OF TRUK LAGOON
P.O. Box 57, Truk Lagoon, E. Caroline Islands 96942
Individual & group tours arranged. Professional guides
for diving & U/W photography. Complete dive services.

MICRONESIAN YACHTS CO., LTD. (670) 6830/6843; Tlx: 783630
P.O. Box 949, Saipan, Marianas 96950. Ansrback: ABOGADOS MN
Dive & sail remote & uninhabited islands of Micronesia incl.
Palau, Northern Marianas on maxi racing schooner 'New World'.

THE VILLAGE 797
P.O. Box 339, Ponape, Micronesia 96941. Telex: 6803
Resort hotel, restaurant, tours, spectacular diving,
private thatched bungalows with waterbeds, fabulous food.

TRUK SCUBA DIVE CENTER (TSDC)
c/o Hans Wiliander, P.O. Box 747, Moen, Truk, E.C. Is. 96942
Complete dive center, tours, boats, guides,
equipment.

NETHERLANDS ANTILLES

LEROY FRENCHS' OCEAN EXPLORERS PH: 011-599-545252
Simpson Bay, St. Maarten, Dutch West Indies
Complete dive shop. NAUI Instruction. 25 Years Experience.
Air fills, rentals, daily dive trips, groups.

MAHO DIVE CENTER 011-599-54-4387
Mullet Bay Resort, Saint Maarten, Neth. Ant., D.W.I.
Good diving, fine dining, casinos, discos, shopping
NAUI/PADI; VISA/MC; dive, relax, enjoy sunny St. Maarten.

PETER HUGHES U/W CURACAO 800/367-3484, 607/277-3484
Peter Hughes Diving/Divi Hotels, 520 W. State St., Ithaca, NY 14850
Located at Curacao Seaquarium. Miles of unspoiled underwater
beauty. Peter Hughes staff & inst./custom dive boats/photo lab.

SABA DEEP N.V.–ADVANCED DIVE CENTER 011-599-4-3347
P.O. Box 22, Saba, Netherlands Antilles, Dutch West Indies
Saba's Original Dive Shop. PADI/NAUI Instructors
"You've dived the rest, now dive the best."

SEA SABA DIVE CENTER 1-800-541-2255 tone 774-9000
Windwardside, Saba, Netherlands Antilles 011-599-4-2246
Full svs. Diving most beautiful reefs in Caribbean. Deluxe
accom. on hillside 1,200 ft. above sea level. Tiny, quiet paradise.

PAPUA NEW GUINEA

JAIS ABEN RESORT PTY. LTD. 82-3311
P.O. Box 105, Madang, Papua New Guinea Tlx: NE82716
Dive coral reefs & WWII wrecks within 15 min. of resort.
Complete packages, 3 boat dives daily, NAUI facility.

RABUAL DIVE & TOUR SERVICES Telex: KAIVUNA 92982
P.O. Box 1128, Rabual E.N.B., Papua New Guinea
Combine the superb setting & reefs of Walindi Resort
with the exciting WW II Wrecks of Rabaul.

TROPICAL DIVING ADVENTURES PTY. LTD. 257429
P.O. Box 1644, Boroko, Papua New Guinea Tlx: NE22380
66' charter dive vessel, 36' dive launch, NAUI Pro Facility.
Bob & Dinah Halstead, Papua New Guinea's sport diving specialists.

PUERTO RICO

CARIBE AQUATIC ADVENTURES 809/721-0303 ext. 3447
Caribe Hilton Int'l, P.O. Box 1872, San Juan, Puerto Rico 00903
Best reef dvg. in San Juan. NAUI & PADI instr., sales. Enclosed
reef & cave dive areas (right at hotel). 4 dives daily.

CARIBBEAN SCHOOL OF AQUATICS, INC. Since 1963
Captain Greg Korwek 809/728-6606
One Taft St., Suite 10-F, San Juan, PR 00911 809/723-4740
Best boat diving, scuba instruction, sailing charters.

CORAL HEAD DIVERS at PALMAS DEL MAR 809/850-7208
Box CUHF, Humacao, P.R. 00661. Complete Scuba facility
including two custom built motor vessels. Exquisite Diving
plus a great variety of other activities at a unique resort.

PARGUERA DIVERS TRNG. CTR. 809/899-4171
Box 514, Lajas, P.R. 00667
Discover the magic of a virgin world at a secluded resort.
Great Accommodations–Dive Packages–Pro Shop.

RED SEA

DIVE SUDAN, SHARM-EL-SHEIKH 415/434-3400
Superb live-aboard dive cruises; 2-18 divers
U.S. agent for local dive operators.
50 Francisco St., 205A, San Francisco, CA 94133.

LADY JENNY V 404/922-1155 USA; UK: 0789-763645
Red Sea Adventures. In 5th year of continuous operations
from Sharm-el-Sheikh. 32 departures/year w/AC comfort. Unlimited
diving, biggest selection of dive sites offered, British crew.

LUCKY DIVERS–The Best Way Into The RED SEA Since Moses!
Moriah Hotel, Eilat, 88000, Israel. Tel. 059-75749. Tlx: 7761 TRET IL.
Dive Red Sea to Ras Muhammad on lux. yacht 'SUELLYN', 78'
Hotel pkg./2 Dvs. $44/day. PADI, CMAS, NAUI Dive courses avail.

LUCKY DIVERS–The Best Way Into The RED SEA Since Moses!
Ultimate Dive Adventure! Boat safari to Ras Muhammad.
Dive/Hotel Pkg. avail. Daily Guided Dives, Modern Dive Shop.
CANADA: Call Mr. Sapina–Quebec 514-461-0110. Tlx: 055 61607.

RED SEA DIVERS, SHARM DIVING, AQUAMARIN, Sharm-el-Sheikh
768385. Dahab Diving Tel. Nuweiba Diving 768832. Tlx: 94002 -
OHTEG UN. HO. 32 Sabry Abu Alam St., Cairo 770200-770301
Diving, eg. lab, windsurf., glass bottom boat, safari, hotels.

RED SEA SPORTS CLUB Tel.: 059-79685/76569
King Solomon's Palace & Caravan Hotel
Equip., sales, courses, introductory dives, boats, U/W photo,
water-ski, windsurfing, seafari & more.

SOLOMON ISLANDS

DIVE SOLOMONS (Anuha/Uepi) & VANUATU 415/434-3400
Virgin reefs/fantastic wrecks/sheer dropoffs from resorts.
U.S. agent for local dive operators.
50 Francisco St., 205A, San Francisco, CA 94133.

ISLAND DIVE SERVICES, LTD. 22103
P.O. Box 414, Honiara, Solomon Islands
Dive the WWII Wrecks of Guadalcanal & The Walls
& Reefs of the South Pacific. Full Facil. Tlx: HQ66315.

SOUTH PACIFIC

CORALHEAD DIVING Hdqtrs.–Box 211, Nuku'alofa, Tonga-Ph. 22176.
Full Dive Shops at Royal Island Resort. 27' 110hp
'African Queen', 17' 55hp 'White Knuckles' to serve you. PADI
Training Facil. USD Auth. Dealer, Full Rntls. & Clean Air.

DIVE FIJI and TAHITI 415/434-3400
Taveuni, Qamea, Ste Reta, Manihi, Rangiroa, Kaveka.
U.S. agent for custom designed vacations.
50 Francisco St., 205A, San Francisco, CA 94133.

OCEAN VOYAGES 415/332-4681
1709 Bridgeway, Sausalito, CA 94965 Telex: 470561 SAIL UI
Dive fabulous Cocos Island, 12 days $1,595 per person.
Also Galapagos/Tahiti/BVI/Philippines for groups 4-10.

SAM'S DIVE SHOP, Box 516, Pago Pago, American Samoa 96799
Dive a remote, unspoiled Pacific Island, 684-699-9417, 699-1317
$490/wk complete, 2 dives/day, all food, lodging, kids-free.
Non-divers $330/wk, excellent free snorkeling, beautiful beaches.

TAHITI AQUATIQUE, B.P. 6008, Faaa, Tahiti Ph. 428042
Dive with Dick Johnson, an American Marine Ext. 0951
Biologist. NAUI, PADI, FFESSM & CMAS intl. instr.: Tour
pkgs., using U.S. equip. with surprisingly good diving.

TONGA–Fantastic, unique & pure virgin diving. Mammoth
cave systems, dropoffs, 200+ feet average visibility.
Air/land/dive packages. Tropical Adventures, 170
Denny Way, Seattle, WA 98109. Nat'l (800) 247-3483.

THAILAND

PHUKET DIVERS CO., LTD. TLX. 65543 PKDIVER TH
7/70 Poonpon Rd., Phuket 83000 Thailand Tel. (076)215738
Snorkeling, diving equipment rentals, boat charters,
sailing trips with 73' DIANA to Pipi & Similan Isl.

SEAFARI–largest dive cntr. in S.E.A's major fun resort 038/419060
Pattaya Beach Resort, Thailand Cable: ROGADEN Tlx: 85909 TH
PADI 5 Star Instr Devl Center/All level certs/11 specs, 1st aid/CPR
Tropical/wreck dives. Sls., svs., rentals, pure air, windsurf, accom.

SUBMARINE DIVERS Intern. Diving Center, Kata-Karon Beach
P.O. Box 101, 83000 Phuket/Thailand, Tlx: 69513 SHPSERV
Diving Tours & Expeditions 1-7 days, 2 Dive-Boats (65 ft.)
PADI Training Facility, write now for free color brochure.

TURKS & CAICOS

THIRD TURTLE INN 800/323-7600
Providenciales, Turks & Caicos Islands 312/655-5678
A small resort in a class by itself. PADI dive shop. 3
dive boats, group rates avail. gourmet dining, luxurious accom.

SEA DANCER, PETER HUGHES DIVING 800/367-3484, 607/277-3484
Peter Hughes Diving/Divi Hotels, 520 W. State St., Ithaca, NY 14850
Live-aboard 110' spacious floating dive resort. Unlimited diving/on-
board compressors & photo lab. 6 night pkgs. out of Grand Turk.

U.S. VIRGIN ISLANDS

AQUA ACTION 809/775-6285
P.O. Box 12138, Charlotte Amalie, St. Thomas, USVI 00801
Scuba, Instruction, windsurfing. Custom dive & snorkeling
tours with personality! Boutique, sales and service.

CARIBBEAN SEA ADVENTURES 809/773-6011
P.O. Box 3015, Christiansted, St. Croix, USVI 00820
4 Dive boats to walls, drop offs, Buck Island Natl. Park.
Individuals or groups, package rates available.

CHRIS SAWYER DIVING CENTER 809/775-7320
41-6-1 Estate Frydenhoj, St. Thomas, USVI 00801
Full svs. NAUI pro facility, personal svs., quality guaranteed,
cruise ship pick-up at dock. Send for VI diving info. packet.

CINNAMON BAY WATERSPORTS CENTER 809/776-6458
P.O. Box 720, St. John, USVI 00830
PADI Certified Instruction, Shipwreck, Reef Dives, 5 day
accomm. and diving, $400 per person, includes all equip.

CONDOS FOR RENT 800/874-0009
St. Thomas, St. Croix, Cayman, Hawaii, Keys.
Over 800 privately owned units, 1-3 bedrooms.
Moderate to luxury.

CRUZ BAY WATERSPORTS CO., INC. 809/776-6234
P.O. Box 252, St. John, U.S.V.I. 00830
PADI Pro Facility, full service store, instruction, dive pkgs.
Daily reef and wreck dives, wreck of "Rhone" every Thursday.

DIVE EXPERIENCE, INC. 809/773-3307
P.O. Box 4254, Christiansted, St. Croix, USVI 00820
40' Dive Boat, wall dives! Night dives. 24 hour number. Hotel
Packages, Introductory dives–PADI–NAUI–SSI.

JOE VOGEL DIVING CO.–EX–UDT Center: 809/775-7610
P.O. Box 7322, St. Thomas, USVI 00801
Oldest cert'd diving school in USVI. Joe conducts all scuba instr.,
day, night, wreck dives & snorkel tours. U/W photo. Pers. service.

REEF DIVERS 1-800-524-2096
P.O. Box 9531, St. Thomas, Virgin Islands 00801
40' Glass Bottom Dive Boat. Scuba instr., guided tours,
snorkeling, sailing, other island tours, car rentals.

ST. JOHN WATERSPORTS (THE DIVE SHOP) 809/776-6256
Box 70, St. John, U.S.V.I. 00830 809/776-6042
Scuba, snorkel, day sail, rentals, air, wreck dives
and PADI Certification.

V.I. DIVERS LTD. 809/773-6045
Pan Am Pavilion, Christiansted, St. Croix, USVI 00820
Full service dive shop, NAUI & PADI, hotel packages.
40' dive boat. Diving St. Croix since 1971.

V.I. DIVING SCHOOLS/SUPPLIES, INC. 809/774-8687
P.O. Box 9707, St. Thomas, USVI 00801-3400 809/774-7368
Sales, tours, classes, rentals, repairs, air.
SSI, NAUI, PADI, YMCA, IDEA: skin diver thru instructor.

WINDWARD ISLANDS

ANSE CHASTANET SCUBA ST. LUCIA 800/328-5285
P.O. Box 216, Soufriere, St. Lucia, West Indies Telex: 0398/6370
Dive packages, accom., bars, restaurant, snorkel, resort courses,
air, rentals. Complimentary windsrf., sail, tennis. 809/454-7354/5

DIVE ST. VINCENT 809/458-4714
P.O. Box 864, St. Vincent, West Indies 809/457-4409
Diving with a personal touch. Full service shop, NAUI, PADI,
NASE, CMAS. Non-cattle boat diving. Dive packages available.

I Learned About Diving From That

Over The Falls At Zuma

BY DENNIS GRAVER

The conditions were strange at Zuma Beach in Southern California that day many years ago. The surface was very smooth with long, low swells passing through the offshore kelp beds. I was skin diving with a friend from Santa Barbara and we decided to return to shore. We were using inner tubes as surface floats and, by placing them beneath us, were able to float high in the water and talk as we swam.

The slope of the beach at Zuma is quite steep and there is a trench very close to the water's edge cut by the longshore current. I had dived in surf for years in Santa Barbara. I was only familiar with how waves behaved on shallowly sloping beaches, however, and didn't realize there was such a difference when the slope was steeper. Under such circumstances, the swells peak suddenly, quite close to shore, and break all at once. I was used to waves that broke some distance offshore and tumbled a long way to the beach.

So, the stage was set for a surprise because of my ignorance of the wave action at Zuma. As we approached shore talking and joking, I could see nothing to indicate a problem because the sea appeared calm and we were looking at the back of the waves that broke within ten feet of shore straight down onto the steep slope of beach. In fact, I was disappointed that, from my perspective, there wasn't any surf because I had learned how to get a free ride to shore by catching a wave and surfing to the beach on my inner tube.

I swam on, oblivious to the situation awaiting. I was very close to shore and considering dismounting the tube to exit when suddenly I was lifted slightly. It seemed as if the ocean had fallen away in front of me. In amazement, I looked down what seemed like ten feet to see coarse, wet sand. The surfers have a term called "over the falls," which applies to a person falling down the front of a wave, and that's what I did. It's amazing how you react, for my instinct was to clutch the tube tightly. That wasn't good, for I landed on my forehead. Everything went black, but I was conscious. Jumping to my feet, I reached up and pulled away my mask to find it completely filled with sand. I recall being impressed that the sand inside the mask was a perfect mold of my eye sockets! The admiration of this sand sculpture did not last long, however, because the shock of the situation caused me to forget the waves were arriving every few seconds. As I stood there stunned by my fall over the front of a spilling breaker, another one crashed onto me from behind and sent me sprawling nearly up onto the beach.

I've only had a leg cramp twice during 28 years of diving and guess when one of them occurred? Yes, right then and there my right calf knotted up in rebellion. The water was cold, we had been diving for hours and it was a long swim to shore. Struggling to cope with the unexpected event during my exit was all that was needed to complete the overload on my calf muscle.

Now let's paint a complete picture at this point: I had only pulled my mask away from my face when I found it full of sand and it had popped back into place when I was knocked down by the second wave. So, when I stood up the second time in ankle-deep water, I was



photo/Paul J. Tzimoulis

blind, had sand in my nose and mouth, was hopping on one leg, holding a tube in one hand and trying to relieve the cramp in my leg with the other hand. I was stunned, shocked and in pain. What brought me out of it? The only remaining sense I had that still worked—hearing—detected laughter. As I pulled the sand-filled mask from my eyes again, I saw my buddy doubled over with laughter. He had backed off his tube at the last moment, allowed the wave to break, then exited cleanly before the next wave broke. He had been able to observe my entire misfortune and proceeded to tell me it was the funniest thing he had ever witnessed.

I failed to see the humor at the time because I was trying to work the soreness out of my leg, the sand out of my head and the pain out of my neck. I was very lucky I didn't break my neck.

What had happened? Why the surprise? I felt the ocean had betrayed me somehow. When I explained to my partner that I had never experienced such a catastrophe and the unusual way in which the wave had broken, he replied that he had thought I was familiar with the "shore break" at Zuma. He then went on to explain the difference between the spilling breakers of Santa Barbara and the plunging breakers of steeply sloping beaches. I was a very attentive student.

Experience may be a good teacher, but it frequently gives the test before the lesson. My friend's information only whetted my hunger for knowledge, however, and I quickly obtained and read a copy of Willard Bascom's *Waves and Beaches*. I learned a great deal more about waves and surf. Had I done that first, I might have been able to recognize the situation at Zuma, but I'm not sure. I'll explain how you can dive safely even if you can't recognize problems and offer a recommendation for diving anywhere the water movement is different than that to which you are accustomed.

During the years since the unfortunate and unpleasant experience at Zuma, I have studied many books and articles on diving conditions in various areas. You can read all you want about drift diving, swift water diving, diving in the Gulf Stream current, etc., but reading alone will not be adequate preparation. To have fun safely, try following the lead of experienced local divers.

I have been surprised a few more times along the way by the power of moving water, but only slightly. Why? Because I learned to approach new situations humbly, to ask questions, to let local divers go first and imitate their techniques. I remember diving in West Palm Beach and watching a diver during an entry hold onto a line attached to the anchorline as he made a back roll from the boat. I followed his lead and was glad I did because I was immediately strung out on the line like a flag. The current was easily five knots.

We must learn to be humble or we will be humbled by the power of water movement. Pride often leads to trouble. One diver insisted that a snorkel must always be worn. The drag created by the snorkel in a strong current can tear the mask from your face and he lost his. Diving practices vary according to the conditions. A good rule to keep in mind may very well be, "When in Rome, dive as the Romans dive."

SKIN DIVER VOL. 36 NO. 1

(ISSN 0037-6345) Published monthly by Petersen Publishing Company, 8490 Sunset Blvd., Los Angeles, California 90069. Second Class postage paid at Los Angeles, CA and at additional mailing offices. Single copy $2.50. Subscription inquiries phone (213) 854-2470 Subscription rates: U.S. Possessions one year $15.94. All other countries one year $23.94. CONTRIBUTIONS: Should be mailed to 8490 Sunset Blvd., Los Angeles, California 90069. They must be accompanied by return postage and we assume no responsibility for loss or damage thereto. Any material accepted is subject to such revision as is necessary in our sole discretion to meet the requirements of this publication. Upon acceptance, payment will be made at our current rate, which covers the author's and/or contributor's right, title and interest in and to the material mailed including but not limited to photos, drawings, charts, and designs, which shall be considered as text. The act of mailing a manuscript and/or material shall constitute an express warranty by the contributor that the material is original and in no way an infringement upon the rights of others. CHANGE OF ADDRESS: Six weeks notice is required to change a subscriber's address. Please give both old and new address and label. Mail to P.O. Box 3295, Los Angeles, CA 90078. POSTMASTER: Send address change to Skin Diver Magazine, P.O. Box 3295, Los Angeles, California 90078.



U.S. Divers widens the gap. Guaranteed.

As the industry's leader for over 30 years, U.S. Divers has sold more regulators than anyone in the world. Today, we're not only making the world's most popular regulators. We're making them even better. And we're backing them with the world's strongest warranty. The U.S. Divers Cousteau Warranty.™

Take our new Conshelf SE2. Introduced last year as the #1 selling Conshelf SE, it now features our revolutionary new exhalation design for even easier breathing.

Then there's our Conshelf 21, a newly improved version of the popular Conshelf 20. It offers everything a first-time regulator buyer wants, including our new easy-breathing design and an economical price.

Finally there's Pro Diver, U.S. Divers' new top-of-the-line regulator. It combines the highest flow first stage regulator in the industry with the SE2's second stage. The result: a state-of-the-art regulator that provides serious divers with unsurpassed performance.

Each of these new regulators meets or surpasses the extremely demanding U.S. Navy performance standards for class A regulators according to U.S. Divers Engineering Lab test data results.

And each regulator is backed by the U.S. Divers Limited Lifetime Warranty, which covers material defects for the life of the regulator. As well as U.S. Divers unique 30-day Satisfaction Guarantee.

Want more information? Contact your authorized Aqua-Lung Pro Line dealer or send $2 for our 1986 catalog: U.S. Divers, 3323 W. Warner, P.O. Box 25018, Santa Ana, CA 92799-5018.

U.S. DIVERS®



Let us coordinate your next dive.

With our selection of hot colors and your sense of style, Tabata can help you coordinate just abaut any diving outfit you want.

You've always got a choice with Tabata. Even the casings on our TR-100 second stages are tuned in to fashion. You can choose from hot pink, lemon yellow, jet black, fluorescent orange, aqua blue, light blue, wine red and our luscious new lavender.

What's more, the TR-100 second stage carries a high IZOD rating because we utilize Borg Warner CTB and sonic welding. We use hypo-allergenic super-resilient silicone throughout. Plus, our balanced flow-through piston first stage is rated to handle up to 4000 psi, and features a 360° swivel with 4 low pressure ports.

Hot colors. High quality.

Dive with Tabata, and you've got it together.

Tabata

2380 MIRA MAR AVE., LONG BEACH BUSINESS CENTER, LONG BEACH, CA, 90815. FAX: (213) 498-1390. TABATA USA, INC., A SUBSIDIARY OF TABATA CO., LTD., JAPAN.

MORE PAGES
MORE COLOR

WRECK FACTS: THE SAGA OF SUNKEN SUBS

skin diver

FOREMOST AUT[illegible]Y IN ITS FIELD

APRIL 1987
$2.95
UK £2.40

HAWAII SDM'S DIVE GUIDE

MISSOURI'S BILLION GALLON DIVE RESORT

SPRING SELECTS FOR DIVE TRAVEL:
Grand Cayman
Key Largo
Bahamas
St. Croix
Australia

EQUIPMENT REPORTS:
Ocean Pro BC
Wenoka Knife
Datacom Console

MARINE REPORTS:
Donzi 33
Novamarine Navy 535

LIVE-ABOARD REPORT:
Sea Dancer
In The Turks & Caicos



71486 02397

THE OMEGA II, SUPER TUNED TO YOU AND IT SHOWS.

Even if you've been diving for years, you'll enjoy a new sense of satisfaction from the new OMEGA II's high performance and light weight. If you're new to the sport, you'll be happy to discover that the OMEGA II is the one super-tuned regulator you already know how to use. It breathes the way you do.

You can actually see it at work. Inside OMEGA's color coordinated transparent housing is a melding of two moving parts . . . a down stream servo assisted demand valve and a bi-radial diaphragm that allows the OMEGA II to breathe with you at all demand levels.

For even more performance, there's the OMEGA II first stage that gives you a fifth port for greater air flow.

At only 6 ozs. that's saying quite a mouthful about a regulator that is anything but. And with Oceanic's patented mouthpiece that ends jaw fatigue, OMEGA II is tuned into your comfort as well.

Tune into the new OMEGA II at your favorite dive shop. It's now showing.

Oceanic wrote the book on what's new in diving. For a copy of our beautiful 38 page catalog, send $4.00 to Oceanic USA, 14275 Catalina St., San Leandro, CA 94577.



Oceanic
USA

DIVING ESSENTIALS REDEFINED

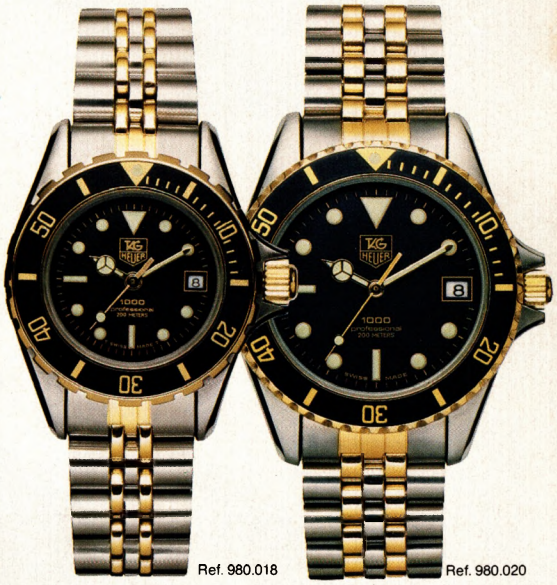
415 - 352-5001

Even 600 feet down, a second is still a second. Exactly.

TECHNIQUES D'AVANT-GARDE

TAG HEUER

In critical situations, accuracy matters above all else. Luckily you can rely on TAG-Heuer. Because TAG-Heuer stands for exceptional Swiss quality, state-of-the-art technology and functional design.
TAG-Heuer: the professional sports watch for a world in which a split second counts.



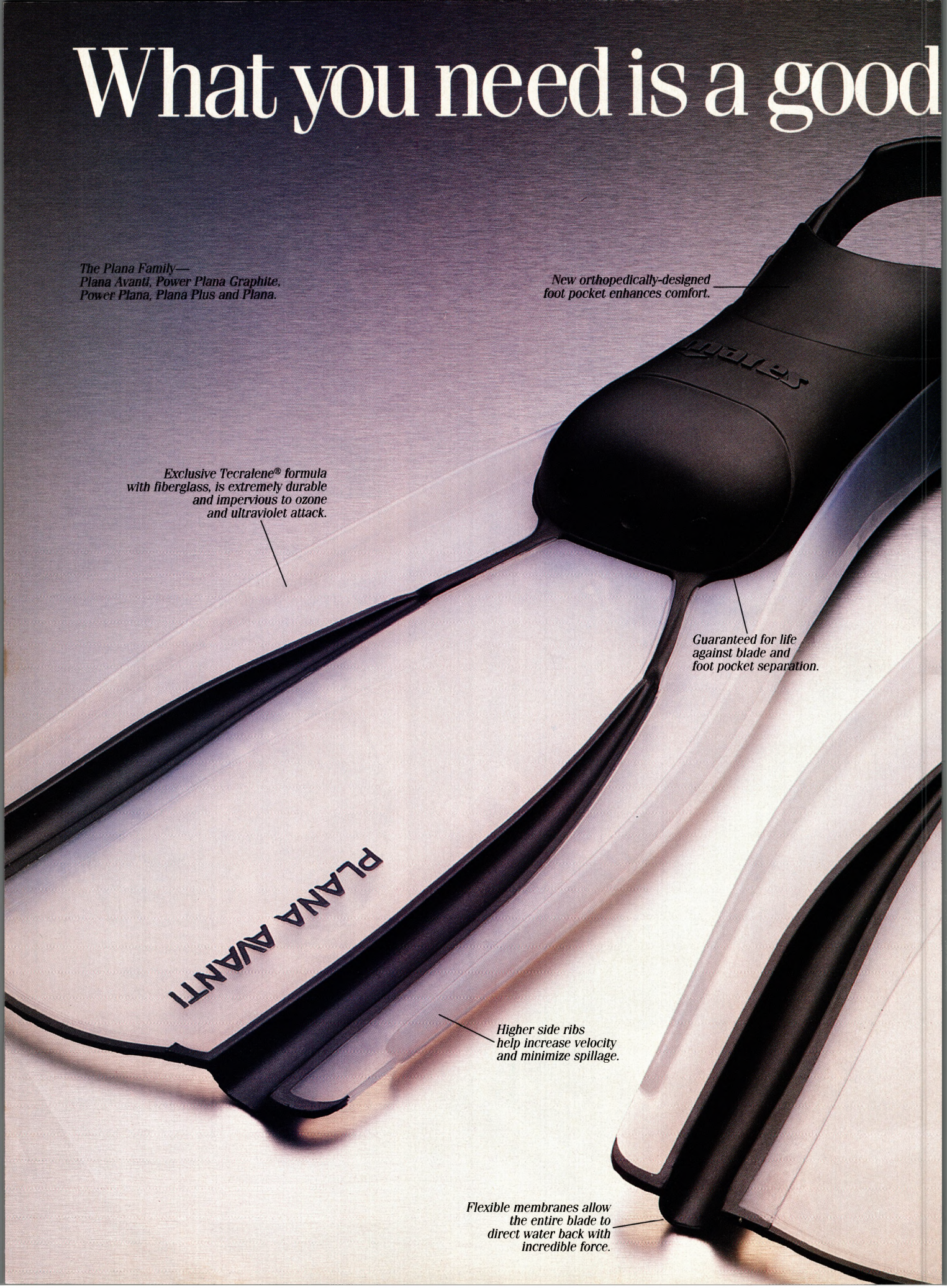
Ref. 980.018 Ref. 980.020

Professional type. Two-tone. Water-resistant to 200 meters (660 feet). Screw-in crown. Uni-directional turning bezel with ratchet.

TAG-Heuer. Time for action.

Heuer Time & Electronics Corp. 960 S. Springfield Ave., Springfield, NJ 07081 (201) 467-1890.
West Coast: 1900 Ave. of the Stars, Century City, CA 90067 (213) 556-8208.

What you need is a good



swift kick.





In diving, there are fins. And there is the Plana Avanti.

Simply put, it's the most advanced fin concept. Ever.

Which is quite a statement. But then, the Avanti is quite a fin.

For one thing, it's from Mares. The people who virtually invented fins. And who with the unprecedented Plana family, started a whole new thrust in fin design.

The Avanti features two flexible membranes that channel water down along the blade with remarkable force. As the blade flexes, the surface area increases, creating a larger propulsion area.



The result is far greater power than ever before. With far less effort. A difference you *will* actually notice!

What's more, comfort has also been considerably enhanced. The foot pocket is deeper, with a longer contoured sole. To accommodate more of your foot and relieve pressure on your ankles.

The Plana Avanti. Power Plana. Plana Plus. And Plana.

Try one on. And experience the biggest kick in diving.

AMF Mares

SeaQuest Inc.
2151-F Las Palmas Drive
Carlsbad, CA 92009
(619) 438-1101

SHORE FOOTED



In pursuit of Lobster salads and Fish Frys, boat decks can get real slippery real fast! SeaStyle boots provide traction with Z-grip soles which feature 50% more ribbing and a special High-Tack, white rubber compound. If you thought SeaStyle boots were just for good looks, try a pair and see how you can be SHORE FOOTED on Land or at Sea.

8 DIFFERENT BOOT STYLES IN 8 DIFFERENT SIZES. VISIT YOUR LOCAL PRO-DIVE STORE FOR DETAILS.

photography by Rob Nelson

wenoka®
SEA STYLE™

1134 53rd COURT NORTH/P.O. BOX 8238
WEST PALM BEACH, FLORIDA 33407
TELEPHONE: (305) 845-6155

RESEARCH / DESIGN / ENGINEERING / QUALITY

See the complete line of Wenoka SeaStyle Dive products at your local pro dive store. While there, ask for your FREE full-color Diving Products Guide or send $4.00 to Wenoka.

COPYRIGHT © 1986
SCHUR INC.
ALL RIGHTS RESERVED

SDM

Volume Thirty-six *Number Four*

PHOTOGRAPHY

24 **NIKON'S SB-16B SPEEDLIGHT** /GERI MURPHY
42 **SDM'S NIKONOS PHOTO COURSE** /GERI MURPHY
48 **SDM'S U/W VIDEO COURSE** /JIM AND CATHY CHURCH

DIVE EQUIPMENT

32 **WENOKA Z-LOCK KNIFE** /BONNIE J. CARDONE
44 **OCEAN PRO BC** /JIM WALKER
45 **CORONA MASK** /JIM WALKER
144 **U.S. TECH DATACOM CONSOLE** /BONNIE J. CARDONE

DIVE BOATS

40 **DONZI ZF 33** /STEVE LUCAS
46 **NOVAMARINE NAVY 535 INFLATABLE** /GEORGE COZENS

LOCAL DIVING

51 **HAWAII DIVE GUIDE** /ROD AND KATHY CANHAM
114 **OCEAN DIVERS/MARINA DEL MAR** /STEPHEN FRINK
138 **BILLION GALLON LAKE RESORT** /MARK LAWRENCE

FOREIGN TRAVEL

73 **WALKER'S CAY** /STEPHEN FRINK
80 **DIVING NEWS FROM DOWN UNDER** /GERI MURPHY
82 **HOLIDAY INN GRAND CAYMAN** /GERI MURPHY
90 **SEA DANCER** /BILL GLEASON
98 **SUNSET HOUSE** /RICK FREHSEE
106 **SUMMER LIVE-ABOARDS** /CARL ROESSLER
132 **BUCCANEER/CARIBBEAN SEA ADVENTURES** /GREG JOHNSTON
150 **FREE DIVING IN MANIHIKI** /GEORGE NOWAK

WRECK DIVING

102 **THE NORMANNIA** /ROD FARB
120 **SANTA CRUZ MINESWEEPER** /DARREN R. DOUGLASS

MISCELLANEOUS

104 **ONE ARMED BANDITS OF THE DEEP** /CHARLES GARRETT
116 **NOGI AWARDS** /JIM WALKER
124 **CALIFORNIA GOLD** /LEE A. SILVA
166 **BALD EAGLES ARE SORE LOSERS** /DICK ANDERSON

DIVER TRAINING

122 **DIVERS UNLIMITED INSTRUCTOR TRAINING** /STEVE LUCAS

THE GOURMET DIVER

146 **WEST COAST HALIBUT** /TOM CAMPBELL

COMMERCIAL DIVING

158 **HIGH TECH DIVE TRAINING IN THE DELAWARE** /E.R. CROSS

COLUMNS

14 **WRECK FACTS**
30 **DIVING MEDICINE**
38 **TECHNIFACTS**
174 **I LEARNED ABOUT DIVING**

DEPARTMENTS

12 **CALENDAR**
17 **SCUBA QUIZ**
162 **ADVERTISER INDEX**
167 **DIVER'S DIRECTORY**

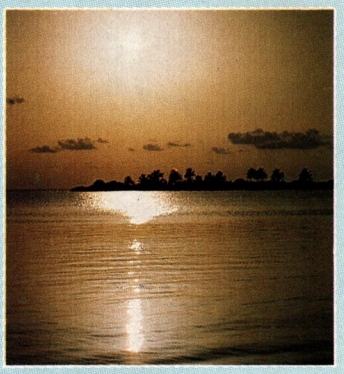
COVER

Doug Goergens hovers over an ore cart at Bonne Terre Mine. For more see page 138. Photo/Mark Lawrence.

© Copyright 1987 by PETERSEN PUBLISHING COMPANY. All rights reserved.



Each with its own charm/Page 51



Sunspot/Page 73



American paradise/Page 132



Mining the dive trade/Page 138



Poised for adventure/Page 90

LOOK WHAT'S HAPPENED TO SNORKELS,

DACOR

SUPER VENT SNORKELS



Larger diameter vent valve and internal deflector vane work with the natural force of gravity to make this the easiest clearing snorkel available. Combining comfort and function, the regulator style mouthpiece is integrated with the vent valve in a low drag configuration that swivels for individual adjustment.





TRI-VISTA MASKS

Three lenses are integrated into a lightweight frame that combines a streamlined design and a panoramic vision field. Feathered edge skirt provides a custom fit, and patented positive strap lock allows easy adjustment.



DACOR CORPORATION

161 Northfield Road, Northfield, IL 60093
Phone (312) 446-9555



VISTA MASKS

Single lens with unique angle design for excellent peripheral and downward vision is molded into a sleek, lightweight frame. This is the mask that set the standard for comfort and fit with face-conforming feather edge skirt.



VISTA-VU MASKS

A new entry into the low volume series of Vistas. The two single lenses are set close to the eyes for an extremely low volume and exceptionally wide viewing field. In addition to feather edge seal, the strap adjustment lock swivels to secure strap to head at any angle. Optivision model available with prescription lenses.

COLOR COORDINATE
ALL YOUR DIVING GEAR
WITH DACOR'S EXCLUSIVE
LINE OF

divecolors™





FINS

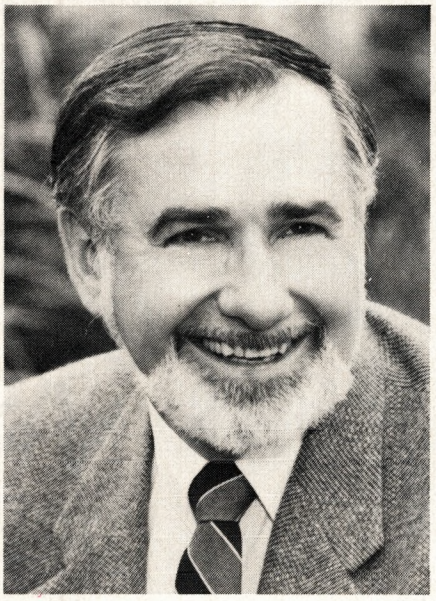
TURBO FLEX—the vents make the difference for more down-kick power thrust while reducing up-kick resistance. CORDAFLEX—full foot fins are lightweight for less leg fatigue and excellent snap back flexibility.

Send Dacor $3.00 for a Dacor Diver Kit.
Includes catalog, cloth patch, decomp table, decals.

SDM Editorial

BY PAUL J. TZIMOULIS

SAND IN THEIR SHOES ... And A Twinkle In Their Eyes



While most divers are aware of the growth and promotion of travel, few of us realize the incredible magnitude of this booming industry. What was once the exclusive pursuit of the rich has now become a popular activity among the majority of American divers.

More than three-fourths of today's divers take interstate trips and almost two-thirds travel overseas. Divers have become a nomadic breed. They trek to the far corners of the globe in quest of warm, clear waters and coral reefs loaded with strange and exotic marine life.

Every two years SKIN DIVER conducts a national survey of its subscribers in order to determine the latest trends in diving. The recently released 1987 Subscriber Survey reveals divers are staying home less and enjoying travel more.

On the domestic scene, the survey showed 75.4 percent travel interstate to dive. Where do they go? Florida is far out in front with a 61.5 percent market share. This is a 12 percent increase since the 1985 survey. The next closest state is California, attracting 17.5 percent of the interstate dive travel business. Other runner-ups include the Great Lakes, middle Atlantic and gulf states.

The big surprise is in overseas travel. A whopping 60.6 percent of SKIN DIVER readers travel outside the continental U.S. on dive vacations, with each one averaging 3.5 trips over the past three years. Comparing this to the 1985 figures of 55.3 percent of the readers making 2.9 trips, the combination of more divers traveling and more trips per diver has produced a 33 percent increase in just two years. When projected against SKIN DIVER's total reader audience, this means an estimated 600,000 Americans are now taking overseas dive trips. Where are they going? An estimated 90 percent choose Bahamas/Caribbean destinations because of their proximity to the United States, frequent jet flights and attractively priced vacation packages. Only 30 percent have visited Pacific destinations owing to the longer distances and higher costs involved. The rest of the oceans of the world attract less than two percent of American dive travelers.

How much do they spend? According to the 1987 survey travelers spend an average of $1,598 per year on dive trips. This amounts to an annual expenditure of $960 million in airline tickets, hotels, meals and diving services.

Where is it headed? What will dive travel be like in three to five years? SKIN DIVER is carefully studying the market with additional surveys and industry interviews. A number of subtle changes have already been detected and these may eventually emerge as major trends. Here are just a few predictions:

1) Within six years an estimated 80 to 85 percent of SKIN DIVER readers will be going on overseas dive trips.

2) Caribbean packages will be even less expensive than today, thus making dive vacations affordable for everyone. Large volume dive operators will be offering low priced programs and making it up in volume.

3) There will be a backlash to the large dive resort operations. A segment of experienced travelers will be seeking small resort operations with personalized service. They will be willing to pay more, but will demand groups be limited to only about six to eight guests per boat.

4) Dive travel to the Pacific will open up in a big way. Air fares will come down and Pacific dive resorts will be competitive with the Caribbean. Divers in Chicago will find it difficult to decide whether to spend their vacations in Bonaire or Fiji, as the cost will be nearly equal.

5) Live-aboard dive boat vacations will become a booming business. Live-aboards will be available wherever diving is popular. Accommodations aboard these boats will be just as good as they are at most small dive resorts. Many live-aboards will start offering split vacations with half the time aboard the boat and the other half at an island hotel.

6) There will be a new trend toward exotic dive travel. These will be rough, safari-like trips to primitive areas of the world. These expeditions will be very expensive and limited to only the hardiest, most experienced divers.

7) There will be a growing trend toward educational dive vacations. Divers will select specific resorts where they will dedicate their vacations to learning such skills as underwater photography, wreck exploration, underwater archaeology or marine life identification.

One thing is for sure. Dive travel is here to stay. This is not a short term fad about to peak out. Instead, it has become a steadily rising wave of underwater interest and enthusiasm. In fact, dive travel has become the basic motivation for enrollment in scuba classes and purchase of dive equipment. Underwater wanderlust has become a national epidemic.



Inside Deep Rover, undersea vehicle.

Aquanaut Sylvia Earle probes earth's other space.

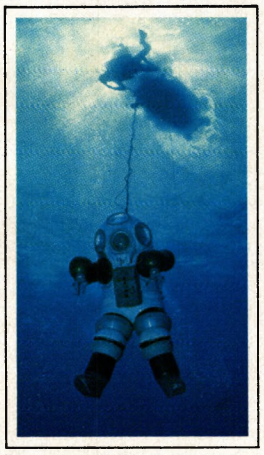
It's Maui. A woman hangs suspended in the Pacific depths. Eye to eye with the great humpback whales of Hawaii.

She holds her space. Intent. Unflappable. Dr. Sylvia Earle never turns from a challenge.

Marine biologist. Oceanographer. Botanist. Dr. Earle led America's first team of women aquanauts. Leadership has been her lot ever since.

She has directed or participated in more than forty expeditions. Few have exceeded her record of five thousand hours under waters as diverse as the Pacific Ocean and the Red Sea.

But not all her fame has been achieved submerged. She has lectured in thirty countries. Written more than fifty articles. Authored the National Geographic book, *Exploring the Deep Frontier.*



Descent off Hawaii in the JIM diving suit.

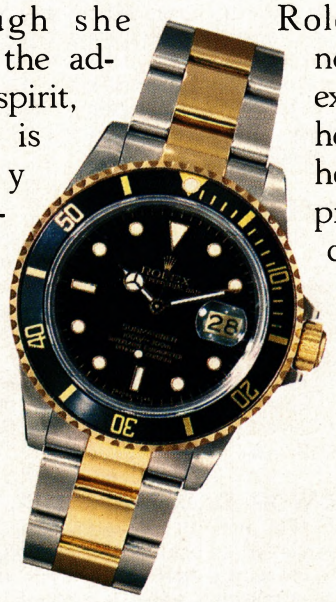
Though she embodies the adventurist spirit, Dr. Earle is equally committed to the preservation of the seas. And ardent in her defense of all life within them.

Today, she searches out methods of ocean conservation. Rallies support for the endangered whale. Catalogs unknown underwater life. Creates devices to explore virgin sea worlds.



Confrontation with a Humphead Wrasse in the Red Sea.

That she relies on a Rolex is not unexpected. Dr. Earle asks no less of her timepiece than she does of herself. Performance must be predictable in unpredictable circumstances. And high purpose must always be artfully executed. The accomplished make no compromise with excellence.



ROLEX

Submariner Oyster Perpetual Date in stainless steel and 18kt gold.
Write for brochure. Rolex Watch U.S.A., Inc., Dept. 134, Rolex Building, 665 Fifth Avenue, New York, New York 10022-5383.
© 1985 Rolex Watch U.S.A., Inc.

Submariner, Oyster Perpetual Date are trademarks

Diver's Calendar

UNDERWATER CANADA '87

The 15th anniversary edition of Underwater Canada will be held **April 3-5** at the Constellation Hotel in Toronto, Canada. The event will feature 150 exhibits, lectures, hands-on workshops, a divers' casino, two dances and Stan Waterman hosting a special film show.

For information contact Underwater Canada '87, 1220 Sheppard Avenue East, Willowdale, Ontario M2K 2X1; (416) 495-4245.

WORLD U/W PHOTO CONTEST

The South Florida Underwater Photography Society is seeking entries for its fourth annual World Underwater Photography Competition, which will be held in conjunction with Oceans Miami Month and the Ocean Expo '87 Film Festival at Planet Ocean in Miami, Florida **April 4-5**. More than $5,000 in prizes plus plaques and ribbons will be awarded winners in the categories of macro, close-up, close focus-wide angle, wide angle and fresh water. Entries must be received by March 10.

For information contact South Florida Underwater Photography Society, 1141 NE 142nd Street, North Miami, Florida 33161.

TOPSIDE PHOTO CONTEST

Ocean Expo Productions will present its 1987 International Photography Contest in conjunction with Oceans Miami Month and the Ocean Expo '87 Film Festival held at Planet Ocean in Miami, Florida **April 4-5**. Sea related topside photos must be received by March 10.

For information contact Ocean Expo Productions, 1141 NE 142nd Street, North Miami, Florida, 33161.

CLEAN REEF CONTEST

Boca Seadventures Dive Center is sponsoring its second annual Clean the Reef Contest on successive weekends **April 4-26** in Boca Raton, Florida. Contestants will remove debris from local coral reefs, and those collecting the most (by volume) and most unusual items will be awarded prizes at a contest-ending party.

For information contact Boca Seadventures Dive Center, 152 NW 20th St., Boca Raton, FL 33431; (305) 391-1474.

U/W EASTER EGG HUNT

The Sculpins Dive Club of Long Beach, California will sponsor an Underwater Easter Egg Hunt **April 5** at White's Point. For information call Jan Tunnicliff (213) 429-6302 or Vicky Van Arsdale (213) 493-6138.

UNDERWATER OLYMPICS

The Adacemy of Scuba Training of Cape Girardeau, Missouri will host its third annual Underwater Olympics at the Cape Central Pool in Cape Girardeau **April 5**. The event will raise funds for the Divers Alert Network and the American Heart Association. Underwater events will include tricycle and shopping cart races as well as catching pennies in a cup. A television monitor will be available for spectators to watch the underwater action.

For information contact the Academy of Scuba Training, 437 Broadway, Cape Girardeau, MO 63701; (314) 335-0765.

EVOLUTION OF DIVING

Santa Ana College Dive Club will present Nick Icorn's Evolution of Diving program **April 9** in room U201A/202 of the Johnson Campus Center at Rancho Santiago College (formerly Santa Ana College). The program includes a slide show and display of early diving gear. Admission is free.

For information contact Jim Taylor, 22011-J Rimhurst Drive, El Toro, CA 92630.

TITANIC TONIGHT

The Oceanic Navigation Research Society will sponsor a three day series of events **April 10-12** in San Pedro California. Friday through Sunday the *Azure Seas*, *Royal Odyssey* and a third ship will host luncheon tours with maritime authors/historians. There will be a Friday night reception. The Los Angeles Maritime Museum will feature a special *Titanic* exhibit on Saturday and that night there will be a dinner aboard the *Princess Louise*.

For information contact ONRS, Inc., Box 8005, Universal City, CA 91608-0005; (818) 985-1345.

SCUBA FAIR

Aqua Addicts Dive Club of Northwest Ohio is sponsoring a Scuba Fair **April 11** from 2:00-7:00 pm. There will be displays and seminars. Dave Trotter will be the featured speaker. For information and the fair location contact Dave Schiefer, Rt. 3, Montpelier, Ohio 43543; (419) 485-5059.

SCUBA FLEA MARKET

Wright State University's fourth annual Scuba Flea Market and Diver Exchange will be held **April 12** in the Physical Education building on the main campus in Dayton, Ohio. Admission is free and there will be sales of new and used dive equipment, films, videos and slide presentations.

For information contact Dan Orr, Director, Underwater Education Program, Wright State University, Dayton, Ohio 45435; (513) 873-3223 or 435-2676.

UCSB U/W EGG HUNT

The University of California at Santa Barbara Scuba Club will host its annual Underwater Easter Egg Hunt **April 12** at Goleta Beach County Park in Southern California. Divers retrieve golf balls, which they exchange for raffle tickets that may win prizes.

For information contact UCSB Scuba Club, 3145 UCEN, P.O. Box 175, University of California Santa Barbara, Santa Barbara, California 93106.

OUR WORLD-UNDERWATER

The 17th annual Our World-Underwater conference will be held at the Hyatt Regency O'Hare in Chicago **April 24-26**. There will be lectures, workshops and a Saturday evening film festival.

For information contact Our World-Underwater, P.O. Box 4428, Chicago, IL 60680; (312) 527-0757.

(Continued on Page 22)

skin diver

STAFF
PAUL TZIMOULIS / V.P.,Group Publisher, Photography/Marine Division
BILL GLEASON / Editor-Publisher
CONNIE JOHNSON / Managing Editor
ART SMITH / Art Director
BONNIE J. CARDONE / Executive Editor
LESLIE BARROWS / Asst. Art Director
JIM WALKER / Feature Editor
JIM R. WARNER / Ad Service Coordinator
RANDALL RAY / Ad Service Coordinator
REBECCA L. THOMAS / Sr. Editorial Asst.
STEPHEN C. LIPIRA / Data Analyst
RAMONA AGUIRRE / Publisher's Secretary
GRACE RIVERA / Administrative Assistant

CONTRIBUTING EDITORS
BILL BARADA / Environmental Editor
HILLARY HAUSER / Special Features Editor
JIM & CATHY CHURCH / Photography Editors
JACK MCKENNEY / Adventure Editor
E.R. CROSS / Technifacts Editor
GERI MURPHY / Special Assignments Editor
ELLSWORTH BOYD / East Coast Editor
GEORGE COZENS / Technical Editor
ALFRED A. BOVE, M.D. / Medical Consultant

ADVERTISING SALES
MARIO VALENZUELA / Los Angeles
DAN DORAN / Los Angeles
KEITH CLINE / Los Angeles
CAROLINE GANNON / Atlanta
BRENT O'BRIEN / Atlanta
JAN ROUSE / Atlanta
LINDA TAYLOR-LANDUA / Atlanta
MIKE WOOD / Atlanta
EDWARD MONK / New York
CAROLYN PASCAL / New York
SANDRA GONZALEZ-CHURCH / Chicago
KARIN BROCKMAN / Chicago
ROB REYNOLDS / Detroit

PETERSEN PUBLISHING COMPANY
ROBERT E. PETERSEN / Chairman of the Board
FREDERICK R. WAINGROW / President
ROBERT E. BROWN / Sr. V.P. Corporate Development
PETER F. CLANCEY / Sr. V.P. Nat'l. Advertising Director
JOHN DIANNA / V.P. Group Publisher, Auto Performance
THOMAS J. SIATOS / V.P. Group Publisher
PAUL TZIMOULIS / V.P. Group Publisher, Photo/Marine
ROBERT MacLEOD / Sr. V.P. Publisher
MILES KILLOCH / V.P. Publisher
PHILIP E. TRIMBACH / V.P. Financial Administration
JAMES J. KRENEK / V.P. Manufacturing
NIGEL P. HEATON / V.P. Circ. Mkt. Development
LEE KELLEY / V.P. Group Publisher, Auto Spec. Pub.
LEO D. LA REW / Treasurer/Assistant Secretary
MARIA COX / Director, Data Processing
BOB D'OLIVO / Director, Photography
CAROL JOHNSON / Director, Advertising Administration
BOB WEGGELAND / Director, Direct Marketing Division
DON McGLATHERY / Director, Advertising Research
VERN BALL / Director, Fulfillment Services
HENSON LACON / Director, Subscription Sales
FAX (213) 659-1074; TWX (910) 490-2534

ADVERTISING OFFICES
LOS ANGELES
Ralph Panico, Western Advertising Director
8300 Santa Monica Blvd., Third Floor
Los Angeles, CA 90069; Phone (213) 854-2222
NEW YORK
Charles E. Alexander, Eastern Advertising Director
Anthony Coelho, Branch Manager
437 Madison Avenue, 28th Floor
New York, NY 10022; Phone (212) 935-9150
DETROIT
Steve Flemion, Branch Manager
333 W. Fort St. Building, Suite 1800
Detroit, MI 48226; Phone (313) 964-6680
CHICAGO
Duane R. Placko, Midwestern Advertising Director
John Hancock Center
875 N. Michigan Ave., Suite 3131
Chicago, IL 60611; Phone (312) 222-1920
CLEVELAND
Dewey F. Patterson, Branch Manager
Three Commerce Park Square, Suite 605
23200 Chagrin Blvd.
Cleveland, OH 44122; Phone (216) 464-1522
ATLANTA
Terry L. Shiver, Branch Manager
Four Piedmont Center, Suite 601
Atlanta, GA 30305; Phone (404) 231-4004
DALLAS
Jeff Young, Branch Manager
800 W. Airport Fwy, Suite 201
Irving, TX 75062; Phone (214) 579-0454

PETERSEN MAGAZINE NETWORK
Ralph Panico/Western Advertising Director, Los Angeles
Charles C. Alexander/Eastern Advertising Director, New York
Duane R. Placko/Midwestern Advertising Director
Steve Flemion/Detroit Branch Manager
Dewey F. Patterson/Cleveland Branch Manager
Terry L. Shiver/Atlanta Branch Manager
Jeff Young/Dallas Branch Manager
Anthony Coelho/New York Branch Manager



- DEALER AND SALES REPRESENTATIVE INQUIRIES ENCOURAGED
- PRODUCT LIABILITY INSURANCE
- SEE NEW CATALOG

SMY®

WHOLESALE ONLY
1130 ANDOVER PARK EAST
TUKWILA, WA 98188 USA
TELEPHONE: (206) 575-0886
TELEX: 295934 SMYI UR
FAX: (206) 575-1637



Wreck Facts

BY ELLSWORTH BOYD

A ship's bell tolled 52 times for each of the American submarines lost during World War II, as more than 1,000 submarine veterans lined the dock at Pier Four during their national convention in Baltimore, Maryland. As a drum beat solemnly, roses were dropped into the water for each lost submarine. Later, a charter yacht sailed into the Chesapeake Bay with a final wreath in memory of the 3,505 submariners who died. Tom Yost, who served on the USS *Silversides* and the USS *Scabbardfish*, cried as he thought about his buddies and others who went down with their subs.

"There's always the thought," Yost explained, "that it could've been you who died at an age where so much life was still ahead." Yost, who turned 65 several days after the reunion, was a member of the organizing committee for the convention. He had many close calls and trying times during his tenure aboard the subs. One time his vessel went 545 feet underwater to avoid torpedoes launched from a surface ship. The longest he was down was 19 hours where "the air got so bad you couldn't strike a match."

Three other submariners—Orvel Peters, Turk Turner and Earl Harper—were aboard the USS *Perch* when it was hit by the Japanese in 1942. The vessel lay submerged in the Java Sea three days before the men were forced to abandon it. Survivors were picked up by a destroyer and taken to a Japanese prison camp in Indonesia and held 43 months—until the end of the war. "Starvation, malnutrition and beatings were commonplace as a prisoner of war," Turner said. "It was rough, to say the least."

Richard O'Kane, a retired rear admiral, was skipper of the USS *Tang* that went down near Formosa in October 1942. "Nine of us—out of 87 men aboard the ship—survived," O'Kane said. "We were in the water nine hours before we were picked up and taken to a secret naval intelligence prison in Ofuna, near Tokyo. I weighed less than 90 pounds when I got out of prison, but I survived and I'm thankful to be here today."

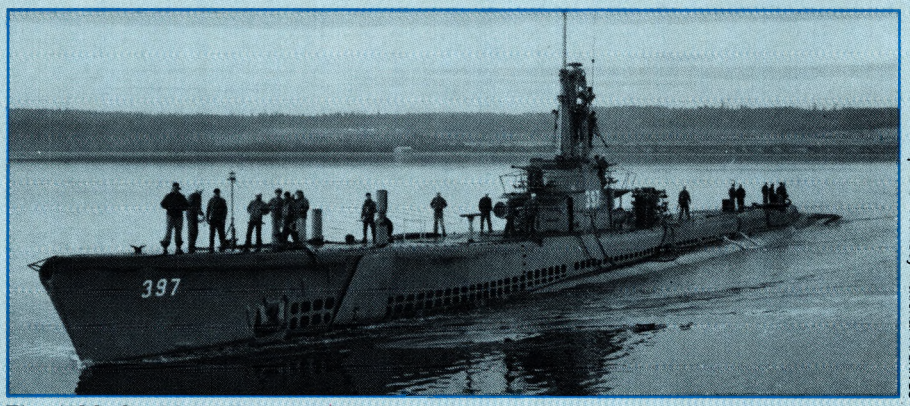
Ed Caram, Jacksonville, North Carolina, is thankful he made contact with the son of a crewman of the *U-576*, a German submarine that sank off Ocracoke, July 15, 1942. The son, who lives in West Germany, sent Caram 168 actual photos of his father, the crew, the sub and every conceivable snapshot taken by the father when he was aboard the U-boat. Caram, a historian, diver and author of two books on the *U-352*, is putting together another book on U-boats sunk off the North Carolina coast.

Vince Kostalni, Flushing, New York, writes: "In September 1986 you told readers I was interested in a book, *Perils of the Port of New York* by Jeanette Edwards Rattray. I'm overwhelmed by the response I received and I offer special thanks to George Lawson who gave me a copy of the book. George says it's in memory of his father and he wanted to give the book to someone who loves the sea as much as his father did. I consider George a new friend, with whom I plan to keep in touch."

Gary Gentile, Philadelphia, Pennsylvania has made 50 rewarding dives on the *Andrea Doria*, and so, when he gets excited about another shipwreck, you know it must be something very special. Gary writes: "I spent two weeks diving off Halifax, Nova Scotia, found a virgin wreck and had the best dive of my career. In 25 minutes I recovered two portholes, a speaking tube, a compass, a clock and a chronometer. On another dive I retrieved a perfectly intact and usable gunsight and took some nice photos of the ship's stern gun, which sits upright on a platform surrounded by a railing. The ship is the Russian freighter, *Kolkhosnik*, sunk in 130 feet of water in 1942 while carrying lend-lease war materials to Russia. The most amazing thing is that part of the cargo consists of tanks bound for the Russian front. Each tank has two barrels, a large one low on the right of it and a small one high on the left. They make tremendous available light profile shots in visibility that averages 50 feet. Rubber treads are still in place on the upright tanks, but torn off on the ones lying on their sides. It's a fantastic wreck I highly recommend to experienced divers."

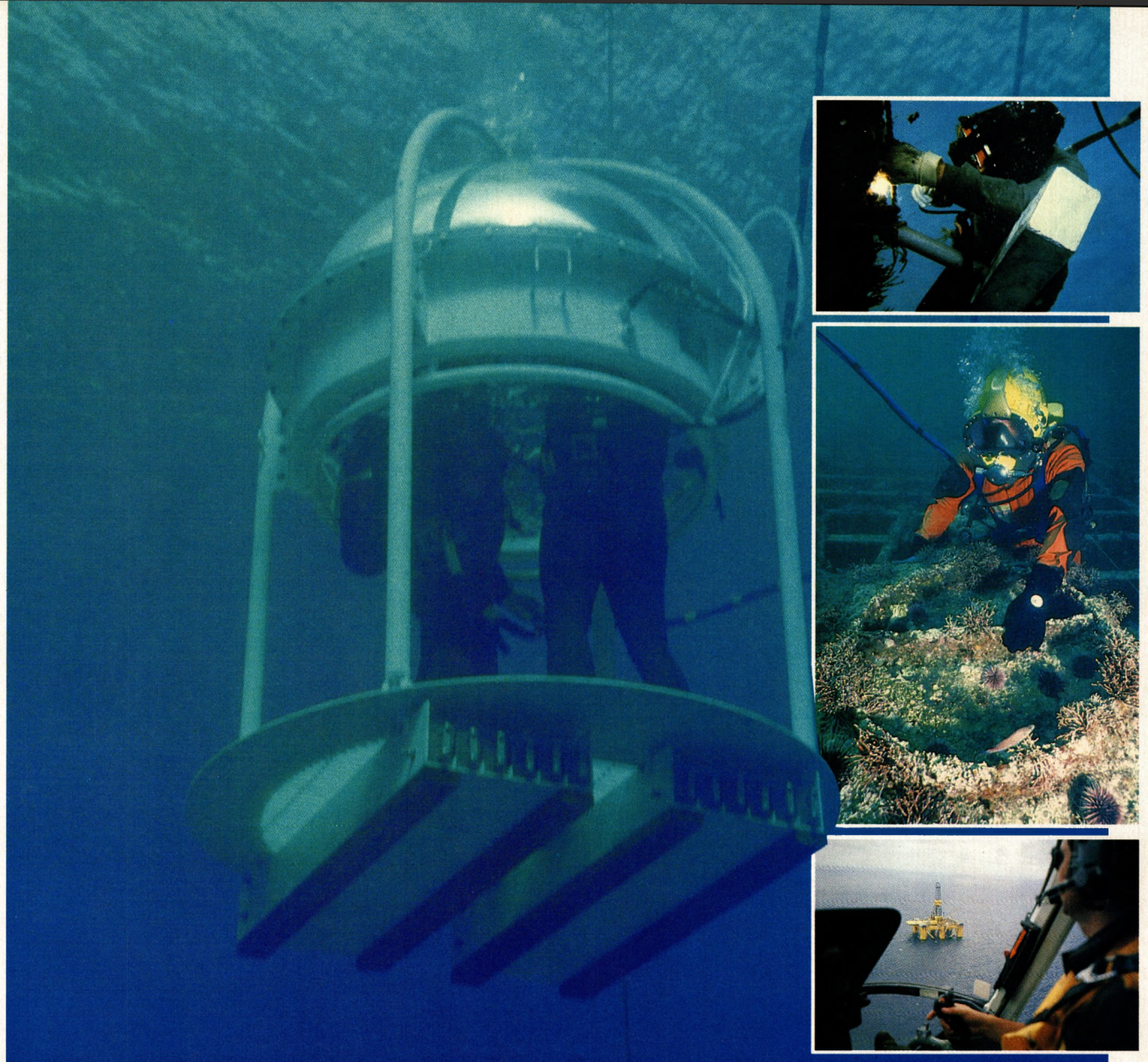
Gentile has been diving many times with Steve Bielenda, captain of the 55 foot dive boat, *Wahoo*, out of Fire Island, New York. Steve wrote recently that the Eastern Dive Boat Association cordially invites dive boat operators to join it. He says EDBA has gotten together to share knowledge, experiences and procedures, and to discuss current problems in day-to-day operations. Steve says: "It is not the intent of EDBA to dictate the manner in which each operator runs his or her individual operation, but to achieve a set of standards of operation and safety for everyone that we can all live with for the common good of all." For further information, contact Captain Steve Bielenda, P.O. Box 888, Miller Place, NY 11764; (516) 928-3849.

(Continued on Page 20)



photo/courtesy National Archives

The USS *Scabbardfish* returns to port after a mission during World War II.



If you like what you see up here, give us a chance to put you down there.

The Ocean Corporation is among the finest commercial diving schools in the world. We pioneered bell diver training, in-house welding training, ASNT level inspection diver training and Diver Medic certification. Our pride runs deep. Give us a call and see for yourself.

Remember, all commercial diving schools are not alike. Check them out. Visit the school if you can. Look for real commercial diving professionalism and reputation, adequate housing and living conditions. Ask the most important question: "How do you plan to help me get my first job in the commercial diving industry?".

COMMERCIAL DIVER ★ THE OCEAN CORPORATION ★

NDT/INSPECTION DIVER ★ THE OCEAN CORPORATION ★

DIVER MEDICAL TECHNICIAN ★ THE OCEAN CORPORATION ★

NUCLEAR DIVE TEAM ★ THE OCEAN CORPORATION ★

The Ocean Corporation

5709 Glenmont Houston, Tx 77081 (713) 661-0033

Call Toll Free 1-800-321-0298 Collect in Texas

Whatever regulator you choose...



Magnum Blizzard® — Specially designed for ice and cold water diving.

Shadow™ Octopus — Connects between the low pressure inflator hose and your power inflator.

NEW!

Magnum II™ — Top performance with more features than ever before.

NEW!

Magnum Oasis™ — Prevents dry mouth and throat by retaining the natural moisture of your breath.

NEW!

Sherwood's got you covered with the lifetime warranty protection card.

The lifetime warranty card you get when you buy a new Sherwood® regulator is not just another piece of plastic to add to your collection. It's your passport to dependable regulator performance and lifetime regulator service wherever you dive.

Just present your card when you bring your Sherwood regulator in for its annual inspection. All parts required will be provided free of charge, although there may be a nominal inspection fee. Warranty protection covers all new Sherwood regulators: Magnum®, Magnum II, Magnum Blizzard, Magnum Oasis, and Brut™, as well as the Shadow octopus and other Sherwood octopus regulators.

While the warranty card covers only your regulator, our concern for your enjoyment doesn't stop at the end of your air hose. Sherwood covers you with a quality line of scuba gear that includes valves, buoyancy compensators, gauges, fins and masks — as well as regulators.

See them all wherever Sherwood Scuba products are sold.

Sherwood's *got you covered*

SHERWOOD SCUBA

Lockport, NY 14094 USA

A DIVISION OF harsco CORPORATION

924-059-1

Scuba Quiz

Category: Safe Diving Practices

By Dennis Graver

During our certification class, we learn diving practices that are to be followed faithfully and others that are always to be avoided. As we become more experienced and confident, we may tend not to adhere to these. The following is both a quiz and a survey. Answer each question with an *honest* estimate, then determine whether or not the procedure being questioned violates standard safe diving practices. The answers and more information are on the next page. Complete each blank with *one* number: During the past two years, how often have you:

	Estimated # of Times	Safe Practice Violation?
1. Dived deeper than 130 feet?	____	Y N
2. Pushed dive tables to the limit?	____	Y N
3. Made a planned decompression dive?	____	Y N
4. Missed required decompression?	____	Y N
5. Ascended faster than 60 feet per minute?	____	Y N
6. Failed to reference dive tables for a repetitive dive?	____	Y N
7. Flown within 12 hours after diving?	____	Y N
8. Failed to note bottom time for a dive?	____	Y N
9. Smoked within 12 hours of a dive?	____	Y N
10. Used drugs within 12 hours of a dive?	____	Y N
11. Consumed alcohol within 12 hours of a dive?	____	Y N
12. Dived with a hangover?	____	Y N
13. Dived with a cold or illness?	____	Y N
14. Dived at an unfamiliar site without a formal orientation?	____	Y N
15. Aborted a dive owing to poor conditions?	____	Y N
16. Exited the water alone?	____	Y N
17. Dived without a flag when it was required or recommended?	____	Y N
18. Run out of air while diving?	____	Y N
19. Dived without an alternate air source?	____	Y N
20. Had your gauges calibrated?	____	Y N
21. Completed a diving refresher course?	____	Y N
22. Completed a diving continuing education course?	____	Y N
23. Had your regulator professionally serviced?	____	Y N
24. Failed to inspect your buddy's equipment prior to a dive?	____	Y N
25. Entered the water with air off or with equipment missing?	____	Y N
26. Dived under ice without formal training?	____	Y N
27. Dived in a cave without formal training?	____	Y N
28. Penetrated a wreck without formal training?	____	Y N
29. Surfaced with less than 300 psi?	____	Y N
30. Become exhausted while in or underwater?	____	Y N
31. Practiced sharing air?	____	Y N
32. Intentionally discarded your weights while diving?	____	Y N
33. Dived overweighted?	____	Y N
34. Forced equalization?	____	Y N
35. Skip-breathed while diving?	____	Y N
36. Surfaced down current from the exit point?	____	Y N
37. Dived with a buddy who was unfamiliar to you?	____	Y N
38. Surfaced more than 100 yards from the intended point?	____	Y N

These responses are based on approximately ____ dives.

Scuba Quiz

Answers: Safe Diving Practices

1. Yes. Diving deeper than 130 feet is a violation. The *maximum* depth limit for recreational diving is 130 feet, and diving to this depth is safe only for the properly trained and equipped.

2. Yes. Pushing the dive tables to the limit is a violation. There is no safety factor in the tables.

3. Yes. Making a planned decompression dive is a violation. This type of diving requires special support and arrangements and is considered a commercial operation.

4. Yes. Missing required decompression is a violation simply because dives should be properly planned. However, you should know the procedures for omitted decompression.

5. Yes. Ascending faster than 60 feet per minute violates safe practices because a rapid ascent can cause decompression sickness.

6. Yes. Failing to reference the dive tables for a repetitive dive is a violation. Keep track of your dive profile and always consult the tables.

7. Yes. Flying within 12 hours after diving is a violation. The old Group D ruie is no longer valid. Waiting 24 hours is even better.

8. Yes. Failing to note the bottom time on a dive is a violation. The data is needed for calculations for other dives made within 12 hours.

9. Yes. Smoking within 12 hours of a dive violates safety. There is a great deal of evidence available to support this.

10. Yes. There is no doubt that using drugs within 12 hours of a dive is unsafe, and that includes more than "social" drugs. Anything altering your physiology can be a problem.

11. Yes. Drinking and diving is a dangerous combination for many reasons. Alcohol should also be avoided after dives.

12. Yes. Diving with a hangover is hazardous. It makes your physiology abnormal and many problems can result.

13. Yes. Diving with a cold or an illness is a violation, and there is more involved than just your ability to equalize pressure.

14. Yes. Diving at an unfamiliar site with no orientation violates safe practices. It can be dangerous when you do not know the correct procedures or the animals and terrain.

15. No. Aborting a dive owing to poor conditions does *not* violate safe practices. This is a wise move.

16. Yes. Exiting the water alone is a violation. Dive buddies should remain together throughout each dive.

17. Yes. Diving without a flag when it is required or recommended violates safety practices. The flag may be troublesome at times, but it is necessary.

18. Yes. Running out of air is a violation. You should have a submersible pressure gauge and check your air supply frequently.

19. No. Diving without an alternate air source is not a violation of safe diving practices, but the use of one is strongly recommended and will soon become a standard safe diving practice.

20. No. Failure to have your gauges calibrated is not a violation, but having them calibrated is a very good idea.

21. No. Completion of refresher training is not a violation, but taking such a course periodically is certainly a good idea to increase safety.

22. No. Completion of a continuing education course is not a violation. It is very beneficial and highly recommended.

23. No. Having your regulator professionally serviced is not a violation. *Not* having it serviced is.

24. Yes. Failing to inspect your buddy's equipment is a violation. Buddy checks should occur prior to every dive.

25. Yes. Entering the water with your air off or with equipment missing is a violation because these would have been prevented with a proper buddy check.

26. Yes. Diving under ice without formal training is absolutely a violation. Training is essential and mandatory.

27. Yes. Diving in a cave without formal training is a violation. For the untrained, this is extremely hazardous.

28. Yes. Penetrating a wreck without formal training is definitely a violation. The only way to be safe is to be properly trained and equipped.

29. Yes. Surfacing with less than 300 psi of air is a violation. There are several reasons for this, the most important of which is a safe ascent.

30. Yes. Becoming exhausted while in or underwater violates safe practices. You must know your limitations and dive within them. Pace yourself, take it easy.

31. No. Practicing the sharing of air is not a violation. It is, in fact, encouraged. Keep proficient in emergency skills with periodic practice.

32. No. Intentionally discarding your weights while diving is not a violation. This is recommended when a problem arises, but the advice is often disregarded.

33. Yes. Diving overweighted is a violation, no matter what the circumstances may be.

34. Yes. Forcing equalization is a violation and can lead to permanent injury. Use nothing more than a moderate effort.

35. Yes. Skip-breathing while diving is a violation. Slow and deep but continuous breathing is recommended.

36. Yes. Surfacing down current from your exit point violates safe practices. Begin dives against any current.

37. Yes. Diving with a buddy who is unfamiliar to you is a violation *if* you fail to coordinate thoroughly before diving together.

38. No. Surfacing more than 100 yards from an intended point is not a safety violation, but it is not a very good idea and suggests you lack navigational skills.

How safely do you dive? How many of the standard safe diving practices do you violate? Being experienced does not justify abandoning safety practices. Accident studies show that divers who are highly experienced and skilled are frequently victims because they consider themselves exempt from safe practices. Keep diving safe. Know and abide by the established and recommended practices.

If you will send this completed survey to me along with a self-addressed, stamped envelope, I will send you an average of all returns so you can see how you compare to other divers. Send your survey to my attention co/NAUI, Box 14650, Montclair, CA 91763.

NEW!

SHADOW™
Octopus Regulator



The in-line octopus unit that operates in conjunction with your power inflator hose.

Put your octopus regulator where it's most convenient — connected right to where your power inflator hose used to be.

No more need for an extra hose. No more dangling octopus getting in the way. No more susceptibility to damage or contamination.

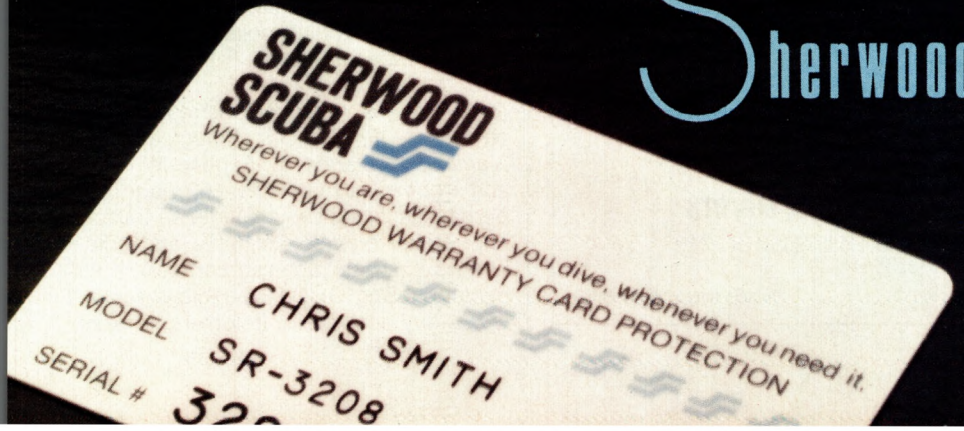
The Shadow octopus fits on your oral inflator hose and can be customized to your personal requirements with a handy Velcro* tiedown. A down-sized exhaust shroud shrinks the package even more.

The dual-purpose Shadow is ideal for your below-the-surface adventures. It's performance-matched to all Sherwood regulators and is available in four colors: blue, black, yellow or orange.

Like all Sherwood® regulators, the Shadow octopus regulator comes with lifetime limited warranty protection!

See the NEW Shadow octopus regulator wherever Sherwood Scuba products are sold.

*Velcro is a trademark of Velcro U.S.A., Inc.



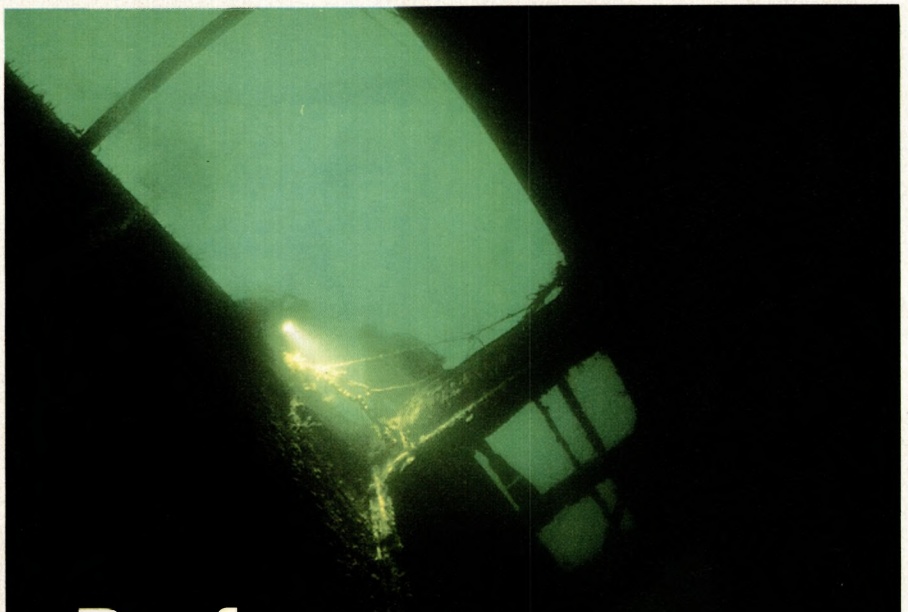
Sherwood's *got you covered*

SHERWOOD SCUBA

Lockport, NY 14094 USA

A DIVISION OF harsco CORPORATION

924-061



Performance.

When you really need it,

count on Contact fins.

When Champion Free Diver Neal Watson and famed underwater photographer Rick Frehsee made their historic dive to the wreck of the Andrea Doria, they wore Contact fins from Beuchat.



They weren't paid to wear Contact fins. Rather, Contact was their personal choice. Because at over 200 feet down in the cold, deep green Atlantic waters, top performance outweighs any other consideration. That's why Beuchat's vented, uniquely-designed Contact is the fin of choice of professional and military divers the world over; they just can't afford to settle for second best.

Yet Contact fins are surprisingly affordable, and cost no more than ordinary, highly advertised brands. So if you're equally unwilling to settle for second best, make the professional choice. Specify Contacts for yourself in open heel or full foot, in a full range of sizes and colors. At America's best dive shops.

Contact fins, one of the Performance Series of products from

BEUCHAT

The Choice of Professional Divers

811 NW 1st Street, Fort Lauderdale, Florida 33311.
Telephone (305) 523-7242. TELEX 514339.

Photography by Rick Frehsee.

WRECK FACTS

(Continued from Page 14)

Lafe Low, Pepperell, Maine writes: "Thanks for recommending Bill Campbell and Bill Hughes as resources for diving the *U-853*, sunk off the coast of Rhode Island. Both were very helpful and with more help from Frank Long, captain of the *Argonaut*, three buddies and I fulfilled our dream to dive the wreck. The water was blue-gray, but very clear. I went down the anchorline and landed on the deck, 110 feet deep, where the conning tower loomed like a dark shadow. Depth charges had ripped holes in the deck and when I shined my light inside the sub, the beam picked up piping and other wreckage strewn about. Our 20 minute dive was an amazing experience and we plan to go back next summer. I can't thank you enough for the first mention of the *U-853* in Wreck Facts. Perhaps I'll see you over the deck of the sub someday!"

Lafe, you and your buddies might be interested in a new book, *Dive Into History: U-boats* by Henry Keatts and George Farr. Published by the American Merchant Marine Museum Press, the 184 page hardback covers, in detail, wrecks of the *U-853*, *U-85*, *U-701*, *U-352*, *U-2513* and *UC-97*. Chapter eight, entitled Last Kill in American Waters—*U-853*, is 35 pages long and includes 47 photos of the sub, its crew, artifacts retrieved from her and divers exploring the control room. Captain Steve Bielenda of the *Wahoo* is credited for some of the photos and is pictured holding a round and clip of 20mm ammunition found on the sub. The book is available from Fathom Press, P.O. Box 191, Eastport, NY 11941. The price is $29.50 plus $1.50 postage.

Ed Seeger, Washington Crossing, Pennsylvania asks if I have any information on the wreck of the *General Gates* in Lake Champlain. Ed adds that he is a distant relative of General Gates and wants to know more about the ship named after him. The ship is actually named *Gates* and was a galley built in 1776 near Whitehall, New York (Lake Champlain). She was one of General Arnold's flotilla, blown up at Skenesboro, New York in 1777 to prevent capture by the British. The 123 ton vessel carried 80 officers and crew. This information came from a book in the Haviland collection, *Dictionary of American Naval Fighting Ships*, published by the Navy.

Californians might be interested in a new book, *Shipwrecks, Smugglers and Maritime Mysteries* by Eugene Wheeler and Robert Kallman. The 160 page paperback includes two centuries of California coastal marine accidents and shipwrecks such as: Spanish caravels, 19th century sailing vessels, paddlewheelers, U.S. Navy destroyers, freighters, tankers

and fishing boats. There is an intriguing eyewitness account of the wreck of the *Winfield Scott* at Anacapa Island. You may order the book from Pathfinder Publishing Company, 458 Dorothy Avenue, Ventura, CA 93003. The price is $8.95 plus $1.50 postage. The same publisher recently released a 22 x 28 inch chart entitled Shipwrecks and Maritime Mysteries—Santa Barbara Channel. On parchment paper suitable for framing, the chart contains drawings and major wreck locations depicted in the book. The price is $4.50 plus $1.60 postage.

An archaeological workshop sponsored by the Maritime Historical Society of North Carolina will be held in May. The weekend seminar will offer students an opportunity to work on the state licensed excavation of the *Picket*, a Union gunboat destroyed at Washington, North Carolina. Onsite activities will be augmented with lectures on excavation techniques, researching and locating historic sites and artifact conservation. For detailed information, send a stamped, self-addressed envelope to: The Maritime Historical Society of North Carolina, 326 E. 12th Street, Washington, NC 27889.

Safe diving to all. Be sure to include a stamped, self-addressed envelope when writing to: Ellsworth Boyd, 1120 Bernoudy Rd., White Hall, MD 21161.

SCUBA SPORTS MOVE

Scuba Sports has relocated its South Miami store to expanded quarters on Kendall Drive. The new facilities feature the only onsite, heated indoor pool at any south Florida dive operation.

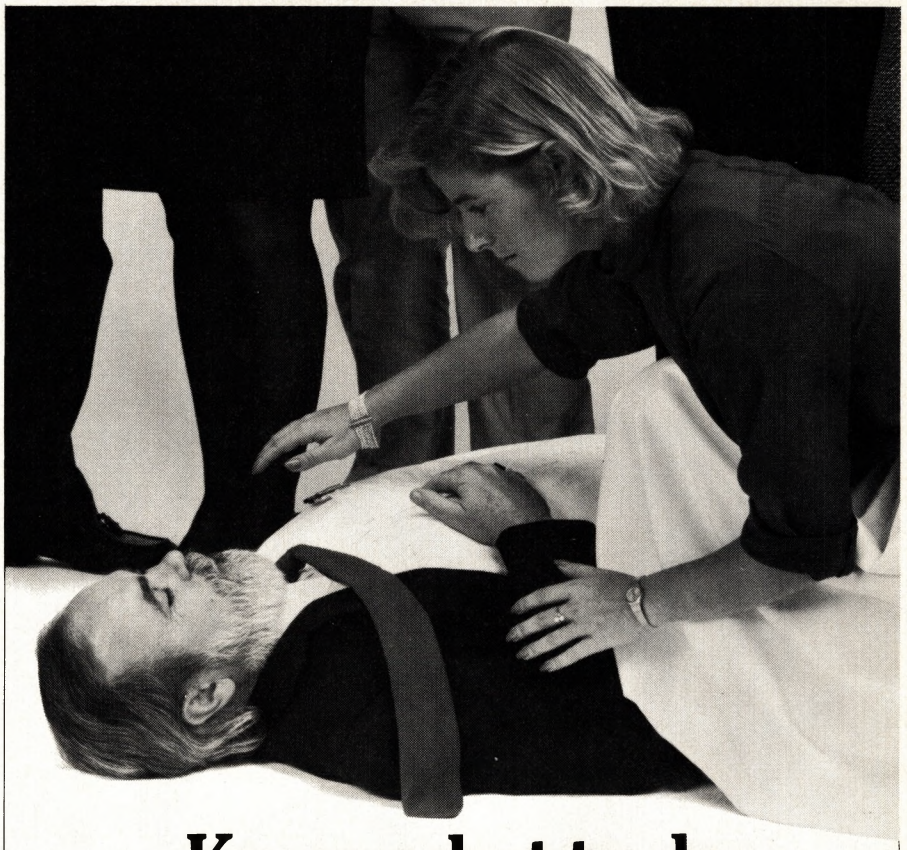
The new Scuba Sports of Kendall is in the Greenery Mall at Dadeland Square, one block west of the Palmetto Expressway (#826) on North Kendall Drive (SW 88th Street). In addition to the pool, the 3,100 square foot facility has showers and changing rooms for the convenience of students.

Complementing the education program is an enlarged, air-conditioned classroom and audio/visual center. Scuba Sports of Kendall will continue to offer the PADI Instructor Development Course (IDC), an open water training referral program for out of town students, and more than ten PADI specialty courses.

There is an upgraded compressor system and an expanded service and repair center. The bilingual staff offers private classes and equipment consultation for the convenience of export customers. All three Scuba Sports stores carry a complete selection of gear.

For information contact Scuba Sports of Kendall, 7720 North Kendall Dr., Miami, FL 33156; (305) 662-2568.

Capture the Adventure
of diving every month with
skin diver



Know what to do when no one else does.

Someone suddenly needs emergency medical aid. Do you know how to help? Maybe it's time to learn.

In as little as eight hours, Medic First Aid can show you how to save someone's life with basic first aid and CPR.

PADI dive stores and instructors are now offering Medic First Aid courses around the world — there's probably one near you. Getting certified in first aid and CPR has never been so simple.

You will learn the same emergency-aid techniques used by paramedics and doctors, but at a layman's level. In addition to CPR, you will learn how to administer first aid properly and effectively using the most up-to-date methods. And, remember that Medic First Aid meets the PADI Rescue Diver requirement for CPR.

Talk with your local PADI dive store or instructor and find out how you can sign up for a Medic First Aid course. Or write PADI Headquarters for a Training Facility List.

Be the one who knows what to do. Take Medic First Aid.

PADI, 1243 East Warner Avenue, Santa Ana, CA 92705, (714) 540-7234, Telex 678400 PADI INT SNA, FAX (714) 540-2609

Medic First Aid, as approved by the U.S. Department of Labor, Mine Safety and Health Administration, covers primary care, secondary surveys, and lastly treatments, according to the *Journal of the American Medical Association*, Standards and Guidelines for Basic Life Support (CPR) (June 6, 1986) and the American Academy of Orthopaedic Surgeons.

PADI Medic First Aid®

TWO WOMEN MOVE UP AFTER A LOT OF BOTTOM TIME



Commercial diver training is tough, but construction worker Shawn Stock and nurse's aid Jessica Kinney wanted in, and they made it. It's an exclusive club, commercial diving, and it's not for everybody, but if you want a challenge, adventure and new, exciting skills, if you want to do a job in an industry where your personal ability counts, maybe it's for you.

...And you don't have to be just...one of the guys.

If you're serious about improving your life, with a new exciting career, consider what we have to offer, our facilities, courses, instructors plus our tuition and job referral program are unmatched in the commercial diving field.



Life's too short to have a boring job.

CALL TOLL FREE: 1/800 824-9027

In California 1/800/367-3947



College of Oceaneering
Los Angeles Harbor, 272 S. Fries Ave.
Wilmington, CA 90744-6399 (213) 834-2501

Diver's Calendar

(Continued from Page 12)

DIVE ACCIDENT SEMINAR

The Divers Alert Network will present a dive accident management and prevention seminar at Martin Memorial Hospital in Stewart, Florida **April 24-26**. The course is offered to advanced divers, instructors and health care professionals (continuing education credits are available).

For information contact Dr. David Bright, Department of Hyperbaric Medicine or Frank Carnavale, LPN, (305) 281-5200. ext. 3068.

MARINE CONSERVATION CONFERENCE

The American Littoral Society and the Marine Affairs Division of the Rosenstiel School of Marine and Atmospheric Science will co-sponsor the South Florida Marine Conservation Conference in Miami **April 25-26**. Topics will include coral protection and mangrove coastline preservation, among others.

For information contact the American Littoral Society, National Marine Fisheries Service, 75 Virginia Beach Drive, Key Biscayne, Florida 33149; (305) 361-4495.

U/W ARCHAEOLOGY WORKSHOP

The Atlantic Alliance for Maritime Heritage Conservation and Pan Aqua Divers will offer an underwater archaeology workshop **May 2-3** at the 92nd St. YMHA in New York City. Duncan Mathewson will direct the event. Archaeological dives are scheduled for May 9.

For information contact Pan Aqua Diving, Inc., 166 West 75th St., New York, NY 10023; (212) 496-2267.

U/W HOCKEY COMPETITION

The Underwater Society of America will host the 1987 National Underwater Hockey Competition in Champaign, Illinois **May 8-10**. The event will determine the team that will control the selection of players who will represent the U.S. in the international competition in Holland next year.

For information contact Brian Blackmore, 608 East White Street, #31, Champaign, IL 61820; (217) 352-0184 or Paul Ulbrich, 5132 South Dorchester, Chicago, IL 60615; (312) 493-5846.

CAVE DIVING WORKSHOP

The National Speleological Society Cave Diving Section will hold its 29th annual Spring Cave Diving Workshop-Festival **May 23-24**. Registration will be at Branford High School, Branford, Florida at 7:00 am May 23.

For information contact Spring Workshop-Festival, NSS Cave Diving Section, P.O. Box 950, Branford, FL 32008-0950.

DIVERS JUBILEE

The International Skin Divers Association will host the second annual International Skin Divers Jubilee **May 29-31** at the Curtis Hixon convention Center in Tampa, Florida.

For information contact ISDA, P.O. Box 130007, Tampa, FL 33681; (813) 831-9596.

Come with us...

"They had teased at the fringes of our senses on our last few dives. Now we're at 'Blue Corner' with the sun climbing and strong currents running.

We drop down the endless vertical wall in a blue-gray vortex of open ocean currents swirling with schools of tuna, jacks and barracuda. Suddenly, from the gloom below, they emerge. Dull shapes, sharpening into form, circling all around us...dozens of the sharks we came to find."

The destination: Palau... the Spring Issue. We take you to the wall with sharks.

Plus: Wreck diving Truk Lagoon • The spectacular walls of Little Cayman • An underwater photo clinic with Howard Hall • Coverage of the '87 Dive Equipment Manufacturers Association Trade Show, highlighting what's new in the industry • A marine life close-up • Seaplane diving • All in the Spring Issue of SEA FANS.

You'll also want to see the Premier Issue featuring Kauai, Bonaire, Sea of Cortez, Chris Newbert and more.



The unique, new 90 minute diving magazine on video tape takes you to more of Planet Ocean every 3 months.

SPECIAL OFFER—25% OFF!

(25% off single copy; 17% off subscription)

USE THE HANDY ORDER FORM OR CALL TOLL FREE TODAY!

800-622-8767

SEA FANS™
VIDEO MAGAZINE
7800 E. Iliff • Suite E
Denver, Colorado 80231 USA

FREE TRIAL Preview SEA FANS on your home VCR WITH NO OBLIGATION.

Annual Subscription. 4 Quarterly Issues: $99.95. Reduced 17%. Save another 17% off single issue price by subscribing. And, we'll bill you later.

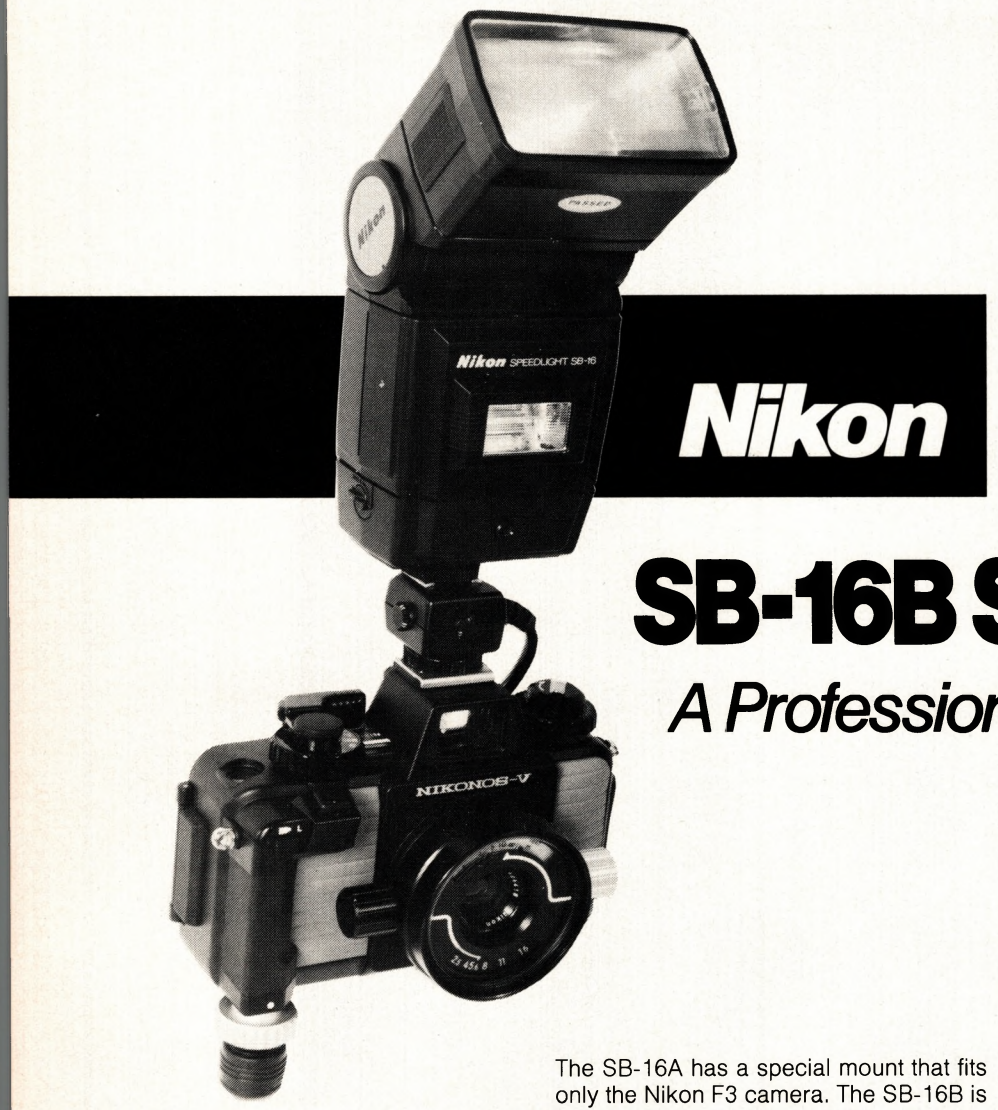
Single Issue. $29.95. Reduced 25%. Pick up the Premier Issue or Spring Issue at leading Dive Shops or order from us.

Guaranteed. If not completely satisfied, return your copy to us within 15 days for a full refund.

☐ **YES, I WANT TO BE A Sea Fan**
☐ **Annual Subscription: $99.95**
☐ Check or money order ($US) ☐ Bill me
Charge to: ☐ Visa ☐ MasterCharge
Start with: ☐ Premier Issue ☐ Spring Issue
☐ **Single Issue $29.95**
☐ Check or money order ($US)
☐ Charge to: ☐ Visa ☐ MasterCharge
Send: ☐ Premier Issue ☐ Spring Issue

Card # _____ Exp. ____
Signature _____
Print Name _____
Address _____
City _____ State _____ Zip _____
Phone _____ ☐VHS ☐Beta

Orders shipped outside U.S.: $8 each sub.; $2 single issue.
Colo. residents sales tax: $7.50 each sub.; $2.25 single issue.
PAL/SECAM: $179.95 sub.; $49.95 single issue.



SB-16B Speedlight

A Professional Bounce Flash

TEXT AND PHOTOGRAPHY BY GERI MURPHY

Last month SDM reported on the SB-15, Nikon's compact little land strobe for the Nikonos V. Now we would like to report on its bigger brother, the SB-16B, a larger more powerful flash that will also work with the Nikonos V.

More sophisticated in design, the SB-16B is the type of unit professionals use for indoor bounce flash and other creative lighting situations. It offers many more features for finite control and delivers one to two f/stops brighter output depending on the lens and shooting conditions. It is especially effective when used with the Nikonos V and its 28mm land lens (LW-Nikkor). Any serious photographer will find this strobe a welcome addition to his/her equipment inventory.

COMPATIBILITY

There are actually two versions of this flash unit; the SB-16A and the SB-16B. The difference lies in the mounting foot. The SB-16A has a special mount that fits only the Nikon F3 camera. The SB-16B is equipped with a standard TTL hot shoe mount, which will fit many Nikon models such as the FA, FE2, N2000 and, of course, the Nikonos V.

Since the SB-16B is strictly a land type flash and cannot be submerged, it requires a special sync cord connector to operate with the Nikonos V. Nikon calls this the V-Type Sync Cord. It screws into the Nikonos underwater flash socket and converts the top mount of the Nikonos V into a hot shoe with full TTL automatic flash capabilities.

DESIGN

The key feature of the SB-16B is that it offers a rotating flash head that zooms in or out, changing the beam angle. It is a high quality unit with superior color balance. Of course, it matches the TTL electronics of the Nikonos V precisely. That it is compatible with most other Nikon cameras is another advantage.

The flash unit is actually a bit larger than the camera itself. When laid out flat it measures 7.5 inches long, 3 inches wide and 2.25 inches thick. It weighs approximately 18 ounces with batteries. The entire camera and strobe will fit easily into a medium sized camera bag and still allow room for an extra lens, film and other accessories.

The SB-16B is powered by four AA batteries and you can use either alkalines or rechargeable nickel cadmium cells. Using alkalines with the strobe set on full manual power, you can get as many as 100 flashes with a recycle time of 11 seconds. If you use rechargeables, the number of flashes drops to 40 but the recycle time is reduced to eight seconds. Keep in mind this strobe will deliver a lot more flashes on TTL setting since the circuitry has an excellent energy saver design.

As indicated earlier, the main advantages of the SB-16B lie in the flash head. It has zoom capabilities with four settings. By moving the flash head in and out you can increase or decrease the beam angle to cover a 28, 35, 50 or 85mm lens. Each of the four settings is very clearly marked with an orange indicator in the window on top of the flash head. In addition to the four standard settings, an extreme wide angle adapter comes with the strobe and allows the flash to be used with a 24mm lens (not for Nikonos).

The flash head can be tilted upward for bounce work. There are a total of six click stop settings ranging from straight ahead to straight up. In addition to tilting upward, the flash head can be swiveled (click stops) to the left in a full 180 degree horizontal arc, and to the right 90 degrees (270 degrees total arc). The combination of tilt and pan capabilities allows the photographer to direct the head in just about any position for bounce flash while holding the camera in either a horizontal or vertical position.

Nikon has given the SB-16B one special feature seldom seen on this type of strobe. In addition to the tilting and swiveling main flash head, there is a small secondary flash head built into the front of the strobe. It operates as a fill flash to prevent eye shadows when using the main head in the bounce mode.

On the back of the strobe there is an on/off switch at the upper right, an exposure calculator wheel and a flash power mode panel. The SB-16B offers five different modes with a selector slide switch. Each mode has its own LED so there can be no mistake as to which is in use.

To the left of this mode selector switch there is a light that glows red when the flash is ready to fire. The ready light also doubles as a manual flash firing button



Nikonos-V automated sophistication. New accuracy and convenience shooting underwater or above.



Nikonos-V with TTL (Through The Lens) flash metering brings you a totally new level of accuracy assuring precise exposure control and the revolutionary convenience of not having to measure or calculate anything.

That's because the camera itself controls the flash, reading the light that falls on the film plane and shutting off the flash at the moment of optimum exposure. You get great pictures every time. Just focus and shoot.



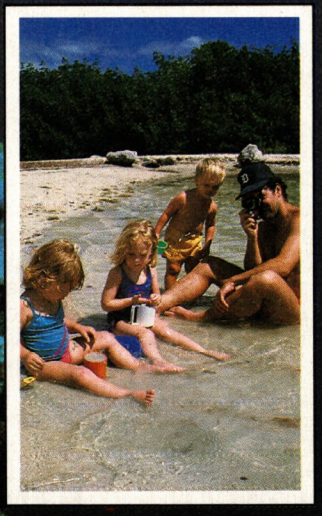


Manual Shutter Speed Control
With a full range of manual shutter speeds at your command, you have the ability to make the exposure *you* want. You can compensate for backlighting, overcome difficult conditions, take advantage of unusual situations.

Example: This shot made at 1/60 sec., f8 and top lighting with the SB102 at manual 1/4 power. Creative control is in your hands.



Large Built-in Viewfinder
The answer to divers' prayers—a viewfinder big enough to really work underwater. Bright LED display shows you what the camera is doing in every situation. And to make sure you get what you see, there's an incredibly accurate light meter built-in, the most accurate ever designed for underwater use.



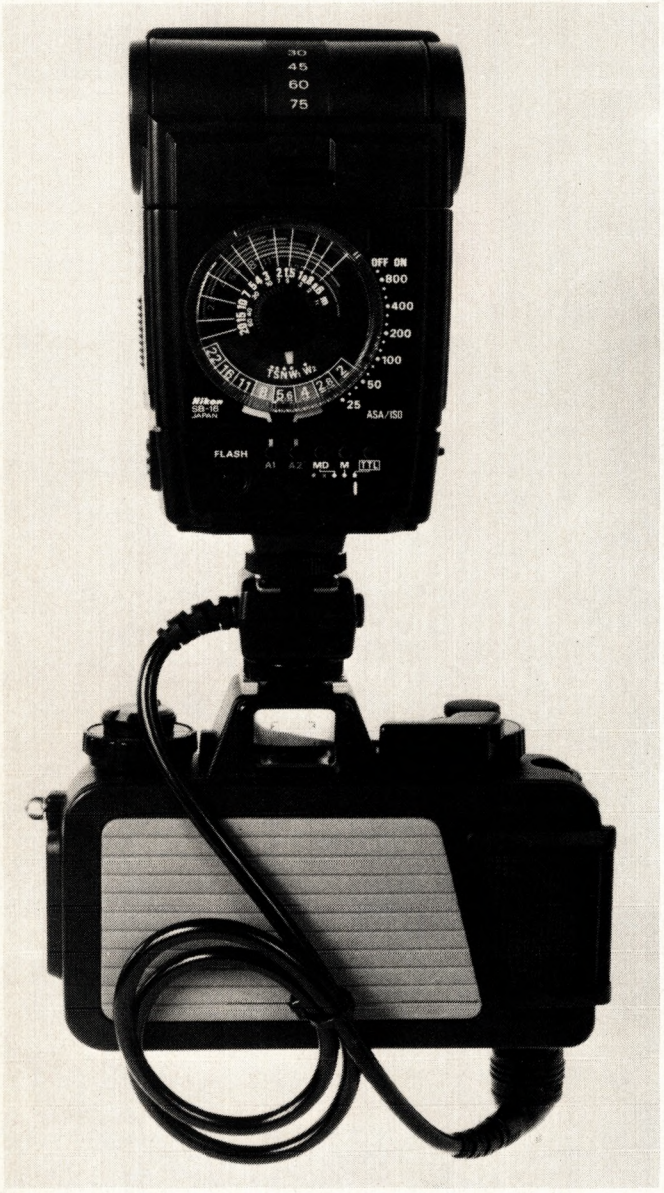
Nikonos-V even does a little thinking for you with its advanced electronic extras. Suppose you've just changed film and forgotten to reset the shutter speed from R (who hasn't?). The camera won't let you miss great pictures. It won't fire until you reset the shutter speed for proper flash synchronization. Or if you've been shooting on land (something your Nikonos-V does superbly 365 days a year)—at shutter speeds higher than 1/90th, the camera automatically resets the shutter speed to 1/90th when the Speedlight is connected and turned on. Even if you forget, the camera won't.

Accuracy, convenience, control—all yours with the automated sophistication of the Nikonos-V. See the entire system at your Nikonos dealer, or contact Nikon Inc., 623 Stewart Avenue, Garden City, N.Y. 11530.

©1986 NIKON INC.

Nikon®
We take the world's greatest pictures.®

Nikon USA CLUB One year membership in the Nikon USA Club is free with every purchase when you submit the Nikon Inc. USA Club Application.





Opening page: The SB-16B flash head can be rotated from straight ahead to straight up (six settings). It can also be turned 180 degrees to the left and 90 to the right. There is a small secondary flash on the face of the strobe. Left: The SB-16B mounts on the Nikonos V, connecting via the V-Type Sync Cord. Above: The back of the strobe has an exposure calculator dial and a flash mode selector panel.

for testing the strobe.

The five different modes for the SB-16B allow this flash to be used in a wide variety of ways and with many different Nikon cameras. The two flash modes most applicable to the Nikonos V are TTL and M. The TTL mode provides full automatic flash exposure, specifically matched to the electronics of the Nikonos V. This is a very accurate form of automatic exposure since the sensor is measuring the light coming through the lens (TTL). The TTL mode setting is clearly marked by a green light.

The M mode allows you to use this flash on full manual power and would therefore work not only with the Nikonos V but also with previous Nikonos models such as the III and IV.

Other flash modes include MD, for land type motor drive Nikon cameras. The MD mode allows the strobe to be fired eight times in rapid succession but puts out only 1/16 the power of the full manual flash. The final two flash settings are A1 and A2. These are standard automatic exposure modes that can be used with all types of non-TTL Nikon cameras. These two modes operate with an automatic flash sensor built into the front of the strobe. A1 is a high power mode and A2 is a low power mode for close-up work.

A large exposure calculator dial is mounted above the flash mode panel. It allows you to dial in the ASA/ISO speed of the film and the zoom position of the flash head. From this data you can determine the optimum f/stop setting for either TTL or the A1 and A2 modes.

PERFORMANCE

I found the SB-16B an extremely versatile flash unit for indoor photography. It is truly professional quality.

Compared to the SB-15 it is a bit more bulky, but substantially more powerful. This was especially true with the 28mm lens: I was able to measure the full two f/stops brighter output. This was because the SB-15 requires a beam spreader to achieve full frame coverage with the 28. The SB-16B does not require a beam spreader for the 28 and therefore does not suffer a reduction of light output. I found approximately a two-thirds to one full f/stop difference in output with the 35mm lens, depending on the lighting setup. Needless to say, the additional power output of the SB-16B has a decided advantage in bounce flash lighting. From now on, the SB-16B goes with me on every photo assignment.

The SB-16B Speedlight carries a suggested retail price of $270. The V-Type Sync Cord is an additional $75. For more information see your authorized Nikonos dealer or contact Nikon Inc., 623 Stewart Avenue, New York, NY 11530; telephone (516) 222-0200.

Free Lycra® skins when you buy a Nikonos-V.

Look like a million for free.

Your Lycra body suit is free when you buy a Nikonos-V body.

$95 value. These bright, colorful "skins" are made from a durable, comfortable combination of Lycra and nylon.

Protection against chills or accidental coral scrapes. They're perfect for photographing in warm tropical water without a wet suit.

"Skins" are in. Good looking and practical, too. So lightweight they pack easily and can even be worn under wet suits for added thermal protection.

A great way to get started in underwater photography. Start looking good in your Lycra body suit and start with the best underwater camera–the Nikonos-V. Then add the lens, flash, and accessories you want to build the system that's right for you.



It's never been so easy to capture all those special moments that you'll treasure forever.

All the exciting, unspoiled beauty that only a diver sees can be captured easily on film with the Nikonos-V. The Nikonos-V offers revolutionary TTL (Through The Lens) auto flash exposure for great photographs every time. It has an extra large viewfinder for easier composition, the most accurate light meter ever in an underwater camera, and you even get a full range of manual shutter speeds for creative override.

Now enhance great underwater photography with great looks.

This free special offer is available from April 1, 1987 to July 31, 1987. See your Nikonos dealer now for the best there is in underwater camera equipment and details on your free Lycra skins.



Nikon®
We take the world's greatest pictures.®

Lycra is a registered trademark of the E.I. du Pont de Nemours & Company Inc.

Nikon USA CLUB One year membership in the Nikon USA Club is free with every purchase when you submit the Nikon USA Club application. For further information write: Nikon Consumer Relations, Dept. N88, Nikon Inc., 19601 Hamilton Ave., Torrance, CA 90502-1309. © 1987 Nikon Inc.

Reversible Fun Set is A Great Reflection on You



HARVEY'S
2505 S. 252nd. Kent. WA 98032

The Reversible Fun Set Suit is not your ordinary wetsuit, it is a combination one or two piece divesuit, waterski suit or boardsailing suit. It is a suit for All your watersports. As the name implies the Reversible Fun Set Suit is completely reversible. The two-tone colors are different on each side. This new concept of wetsuit comes with a full length one piece jump suit as well as a shorty that is worn under the jump suit for extra warmth or can be worn separately for warmer waters.

The Reversible Fun Set Suits come in 1/8", 3/16", and 1/4" Softstretch™ material. A full line of color coordinated matching Hoods, Boots and Gloves is available.

See your Harvey dealer today or send $2.00 for your complete color catalog.
Made in U.S.A. Since 1957 and PROUD of it!

It's Coming! The L-ZERO

PROTON MAGNETOMETER

LOOKING BACK IN YEARS TO COME SEARCHERS WILL NOTE THAT IN THE LATE 1980'S THE L-ZERO SET A DISTINCT PRICE/PERFORMANCE BENCH MARK FOR VERY LOW-PRICED MAGS. OUR L1 THROUGH L4 SERIES HAD ALREADY CLAIMED A MAJOR MARKET SHARE AMONG MAGS OF ANY PRICE/PERFORMANCE SPECS.

L-ZERO ???
L4, $900 (LAND) 1/10 GAMMA
L4 SPLASHPROOF, $975, 1/10 GAMMA
L4+T, $1200 (LAND) 1/50 GAMMA
L4+T SPLASHPROOF, $1275, 1/50 GAMMA

WHY PAY $75,000 FOR 1/50 GAMMA MAGS WHICH IGNORE DISRUPTIVE MAGNETIC STORMS AND MICROPULSES? 1/50 GAMMA ACCESSIBLE WITH LIEBHAZET'S DQM TIMING.

LAND & MARINE SEARCHING - SAME MAG

M. L. DALTON RESEARCH
6035 Aberdeen Ave., Dallas, TX 75230
phone (214) 691-4925



Better ask "WHAT'S A MAGNETIC STORM?"

because buying a mag can be expensive. Storms & micropulses are day-to-day, minute-to-minute screams & chatterings in the earth's magnetic field which mimic & hide the call of nearby search objects or the whisper of lightweight or distant, say 1/10 gamma, objects - a plague for 1 sensor-location mags but not for LIEBHAZET.

This winds down 8 years of developing this new form of magnetic searching HYPER DIFFERENTIAL MAGNETOMETRY. Our instrument continued unpacking its math & physics during the 8 year brain-storming period when our first plucky innovating customers our R&D outlabs, and the inventor/manufacturer interacted directly. Do you older readers remember how beautifully sculptured, how star-warish those vacuum tubes were & how they were replaced by that cheap, plastic transistor? Magnetometry changes too.

Detects 1 lb. steel at 20 ft., 64 lb. at 80 ft., 2 tons at 320 ft., 125 tons at 1280 ft. (mere 1/10 gamma cond'ns!). Send for free info or $2 ($3 foreign) for pic's, complete info. Send $19 ($25 foreign) for 61,000 word 54 fig. book SEARCHING WITH 1 & 2 SENSOR-LOCATION MAGS. To avoid long distance waste phone only answered when chief engineer available. Call nights & weekends too. Avoid early morning calls.

NYSDA ANNIVERSARY

The New York State Divers Association recently celebrated its 25th Anniversary as a representative of the Empire State's diving community. NYSDA is one of America's oldest continuously run diving councils, dedicated to the safety, education and protection of diver's rights.

NYSDA has been instrumental in bringing a divers flag law to New York and educating the public to its meaning. It has helped sponsor seminars, film festivals, dives for charity and many other diving events. The state association has continually supported organized diving through clubs, other state councils and the Underwater Society of America.

The association newsletter, Divers Digest, keeps members, instructors, dive shops and other councils informed on happenings in the state.

The New York Divers Silver Anniversary Convention will be held at the Silver Bay Lodge on beautiful Lake George June 12-14. Featured events will be an Angolob Grotto display, a Silver Treasure Hunt, election-dinner and presentation of the annual Diver of the Year award.

For information contact Dick Zielinski, 24 Medallion Drive, Otego, NY 13825; (607) 988-6898 or Robert E. Bird, RD #2, Box 311A, Narrowsburg, NY 12764; (914) 557-6366.

UMS NOW UHMS

The Undersea Medical Society has changed its name to the Undersea and Hyperbaric Medical Society (UHMS) to reflect the emerging importance of hyperbaric medicine and the many hyperbaric specialists who are joining the society.

UHMS is a non-profit organization serving more than 2,000 members worldwide, including more than 400 members from China, Australia, Japan, Europe and elsewhere outside the U.S. Most UHMS members are diving or hyperbaric scientists and physicians. Hyperbaric medicine nurses and technicians, as well as sport divers and students, comprise a substantial group of associate members.

When the organization was founded as the Undersea Medical Society in 1967 (incorporated in 1972), its prime objective was to develop channels of scientific communication among researchers dedicated to the safe penetration of the oceans. The UHMS has gradually expanded its objective beyond diving medicine and physiology to include hyperbaric oxygen (HBO) as well.

The UHMS provides its members with current diving physiology and diving and hyperbaric medicine information via its two journals, workshop reports, literature searches and bibliographies, books, research symposia and scientific meetings.



The Great Nikonos Shootout 1987

It's the world's most prestigious underwater photography contest held at Grand Cayman May 2–9, 1987, Bonaire May 30–June 6, 1987 and Cozumel July 11–18, 1987.

Sign up

To register and make your reservation to whichever destination you choose, you must call one of these **"Shootout" Hotlines: Grand Cayman: 800-526-1394 or 800-262-7686, Bonaire: 800-345-0322, Cozumel: 800-446-2166.**

Enter all three shootouts and triple your chances.

Shoot 'em up

Take your best shots. Kodak supplies the film. All you pay for is the processing. Judging will be done by the photo editors of Nikonos Technique Magazine and Skin Diver Magazine. **Winning pictures will be published in Skin Diver and Nikonos Technique.**

You Could Become a World Famous Photographer Overnight!

Free Seminars

on underwater photography. Learn how the pros do it. Their seminars alone are worth the trip and can help you win.

$60,000 in prizes for the best underwater shots.

Grand Prize

A week for two at the world's greatest dive location—**the Coral Sea!** Air transportation from California courtesy of Qantas Airlines. Plus, accommodations on board See & Sea's luxury, live-aboard dive boat complete with captain and crew. Plus more—$3,000 worth of Nikonos photo equipment.

8 - 1ST prizes

One week dive vacation for two awarded to Bonaire, Grand Cayman, or Cozumel, including airfare, plus $1,200 worth of Nikonos equipment.

9 - 2ND prizes

One week dive vacation for two awarded to Bonaire, Grand Cayman, or Cozumel, including airfare, plus $800 in Nikonos equipment.

9 - 3RD prizes

One week dive vacation for one awarded to Bonaire, Grand Cayman, or Cozumel, plus $400 in Nikonos equipment.

30 - 4TH prizes

Other photo and diving prizes.

57 Prizes in 3 different categories.

OFFICIAL FILM KODAK

Kodak

GRAND PRIZE SPONSORS

QANTAS
The Airline of Australia

See & Sea
TRAVEL SERVICE, INC.

Contest open to amateurs only; you must use a Nikonos camera. The great Nikonos Shootout will take place only on the dates and at the locations specified. All travel and diving arrangements must be coordinated through the listed "Shootout" Hotline numbers. Good luck and good shooting.

Complete "Shootout" details are on the entry form available at your Nikon dealer or by calling the "Shootout" hotline.

Nikon®
We take the world's greatest pictures.®

© 1986 Nikon Inc.

Diving Medicine

BY ALFRED A. BOVE, M.D., Ph.D.

This month, Diving Medicine features two articles submitted by readers experienced in exercise physiology and infections caused by marine organisms.

The first article, by Louis W. Jankowski, Ph.D., covers several important concepts in fitness and exercise that are helpful in safe sport diving. Dr. Jankowski is an associate professor in the department of exercise science at Concordia University, Montreal, Quebec. He is also a consultant on therapeutic exercise at Constance Lethbridge Rehabilitation Center. A U.S. Coast Guard licensed captain, he operates a charter dive boat on Lake Champlain, NY.

The second article, by Paul S. Auerbach, M.D., is helpful in understanding the problems of wound care when diving. Dr. Auerbach is an associate professor of surgery and medicine, as well as director of emergency services, at Vanderbilt University Medical Center in Nashville, Tennessee. He is the author of Medicine for the Outdoors *(SDM, Divers Bookshelf, September '86).*—Fred Bove.

IMPROVING DIVER FITNESS

Physical fitness is essential for success in all sports and diving is no exception. Divers should maintain the degree of physical fitness required to practice their sport without incurring risks caused by excessive fatigue. Fatigue normally follows all prolonged physical activities and effectively decreases both physical and mental capacities. Rapid or excessive fatigue among sport divers therefore increases the risk of accidents and injuries. The physically fit diver has the capacity to perform all diving related activities without manifesting the signs of fatigue.

Exercise physiologists can measure the rate of oxygen consumed to determine the energy cost of any activity. This is usually expressed as the volume of oxygen consumed per minute (VO_2). Similarly, the exercise capacity of any individual may be ascertained by measuring their aerobic capacity or maximal rate of oxygen consumption (VO_2 max.). Oxygen consumption values are best understood when normalized for body weight and expressed as multiples of the resting metabolic rate, METs. An individual at rest normally consumes oxygen at the rate of 3.5 millimeters per kilogram of body weight per minute (3.5 ml/kg/min.) or one MET. The energy cost of walking is 3 METs or three times the resting metabolic rate. The average energy requirement for scuba diving is 8 METs but during diving, the energy expenditure may vary from 2 METs, while quietly sitting on the bottom, to 18 METs when towing a buddy against a strong current.

When obliged to exercise beyond 80 percent aerobic capacity for more than a few minutes, one begins to manifest the physiological law of diminishing returns. Breathing increases and most of the extra oxygen obtained is used by the respiratory muscles themselves. Consequently, working skeletal muscles begin to contract anaerobically (without oxygen) and produce significant quantities of pyruvic and lactic acid. These substances increase the acidity of the circulating blood, inhibit the efficient transport of oxygen, and further stimulate respiration. At this point, prolonged or intensified effort can cause a black-out, analogous to a breaker interrupting an overloaded circuit. Based upon the average 8 MET energy cost of scuba diving the minimum aerobic fitness level for all sport divers is 10 METs or 35 ml/kg/min.

The VO_2 max can be precisely determined during an exercise tolerance test. These tests are generally available in uni-

(Continued on Page 34)

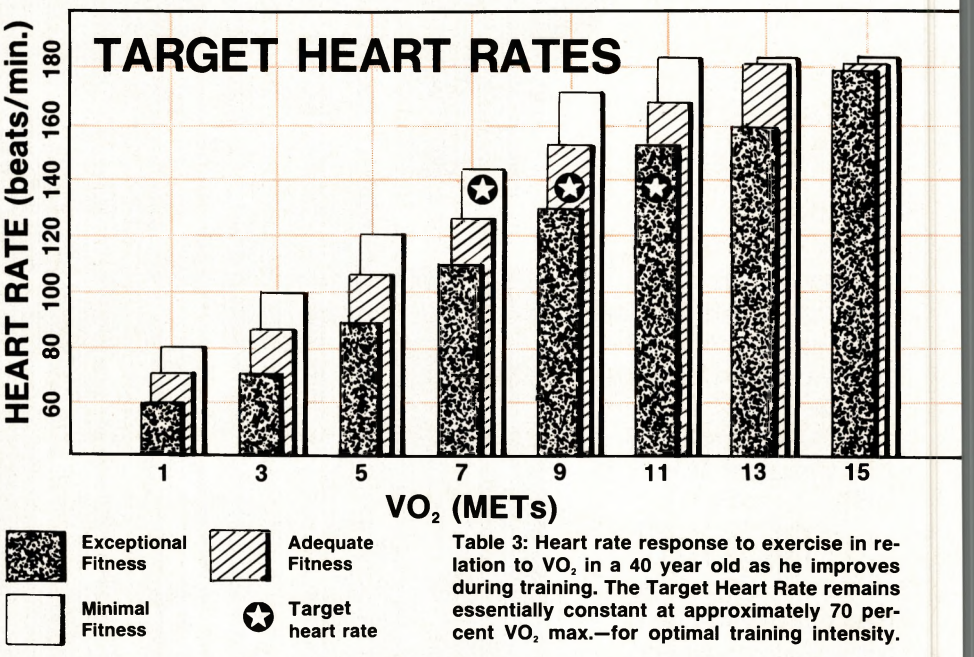


Table 3: Heart rate response to exercise in relation to VO_2 in a 40 year old as he improves during training. The Target Heart Rate remains essentially constant at approximately 70 percent VO_2 max.—for optimal training intensity.

THR = R + O.X [220-(A+R)]

THR = Target heart rate
R = Resting heart rate
X = Desired exercise intensity (%VO_2 max.)
A = Age

Example: A 40 year old diver wishes to train at 70% VO_2 max.
Resting heart rate = 72

THR = R + 0.X [220-(A+R)]
= 72 + 0.7 [220-(40+72)]
= 72 + 0.7 (108)
= 148

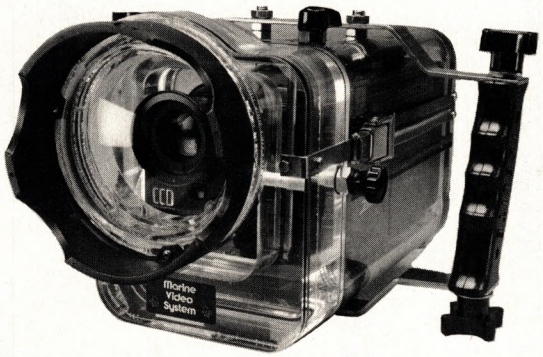
The diver should train at a heart rate of 148 beats/minute or a 15 second pulse of 37.

Table 2: Calculation of the target heart rate (THR).

	Minimal Fitness	Adequate Fitness	Exceptional Fitness
VO_2 max. (METs)	10	12	14
Sustained running speed (mph)	6	7.5	9.5
Running Pace (min./mile)	10	8.0	6.3
12 min. Run (miles)	1.25	1.60	1.90
Sustained Ergometer Ride (Watts)	185	225	250
Relative Intensity of scuba diving (%)	80	65	57

Table 1: Fitness levels of sport divers classified by METs and performance criteria.

IKELITE Offers a Choice.



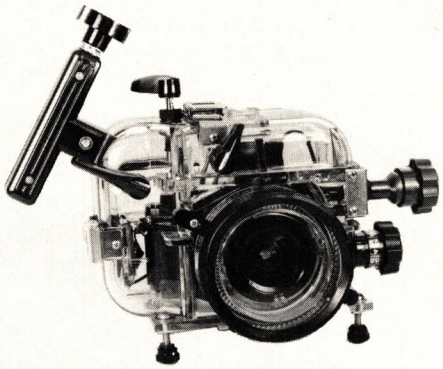
VISIBLY SUPERIOR VIDEO

VHS and 8mm systems. Ikelite Video systems offer superior results, safety and camera control functions at half the cost. Optional wide angle lenses are available.



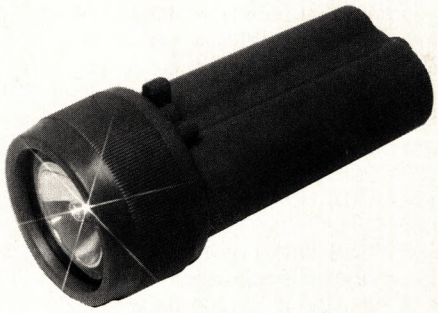
DISCOVER THE DISC

First time get sharp, clear photographs. Simply point and shoot. Ikelite disc system does the rest for you automatically. Use the close-up accessory to photograph small marine subjects as close as 8 inches.



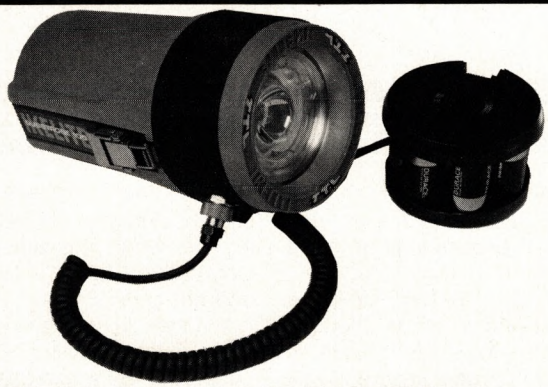
SLR SYSTEM DOES IT ALL

All new for '87. The only 35mm system to offer automatic focus, automatic aperture, TTL auto exposure and motorized film advance. Interchangeable lenses and ports.



MINI C-LITE Halogen

Hi-intensity halogen bulb for unsurpassed intensity and versatility. Small size is easy to carry.



STROBES FOR ALL CAMERAS

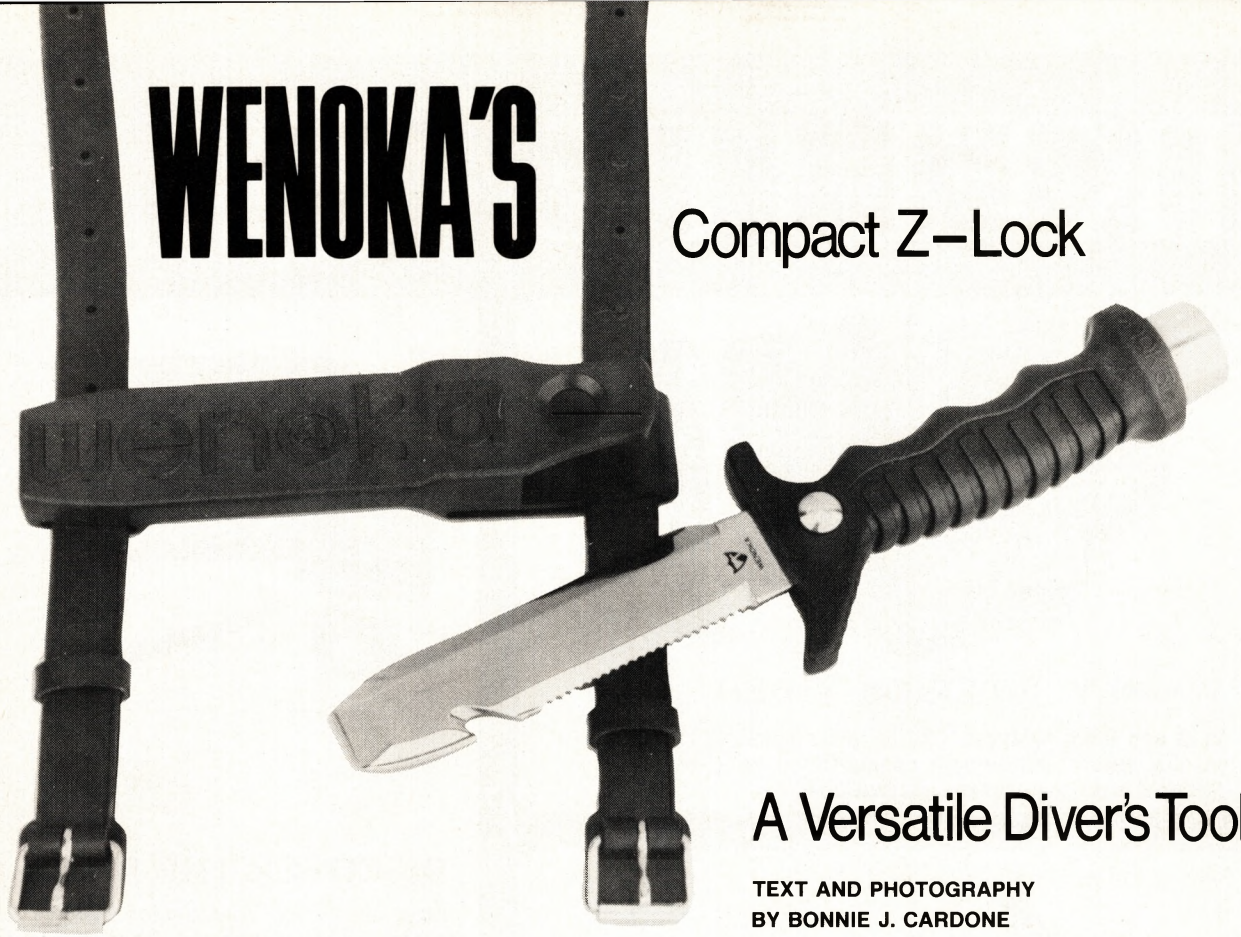
Designed and built to suit both the professional and amateur photographer. TTL auto exposure and slave modes. High intensity output with fast recycle. Modeling light.

ikelite
UNDERWATER SYSTEMS

50 West 33rd Street
P.O. Box 88100
Indianapolis, Indiana 46208
(317) 923-4523

Contact Your Local Ikelite Dealer

WENOKA'S Compact Z–Lock



A Versatile Diver's Tool

TEXT AND PHOTOGRAPHY BY BONNIE J. CARDONE

"Knife: A cutting or stabbing instrument with a sharp blade, single-edged or doubled-edged, set in a handle." Well, this does describe my dive knife—partially. "Tool: Any implement, instrument, or utensil held in the hand and used for cutting, hitting, digging, rubbing, etc." Aha—now *that* definition is a little closer. But, a dive knife has many functions, only a few of which are defined in *Webster's New World Dictionary*. If it is Wenoka's 8612 compact Z-Lock, it has even more.

The 8612 has a blunt tip. Need a screw diver to turn the maximum depth indicator needle on your depth gauge back to 0? The compact's blunt tip fits neatly in the slot. Need a chisel to chip a scallop off a rock? The compact's blunt end is perfect for that, too. In addition, the compact has a line cutter and both serrated and non serrated edges. In other words, it performs traditional knife functions, too. It's called a compact because, from tip to blunt end, it is just nine and one-half inches long. The blade is only four and one-half inches in length.

The 8612 was introduced last year, but new this year are the colors in which it is available: The handle, sheath and straps come in lavender, yellow, bright blue and pink, as well as black. There is also an orange handled 8612 with a black sheath. The sturdy, durable thermo-resin handles of all the compact Z-Locks (there are five different models) are interchangeable. They are molded to fit your hand and have ridges that make them non slippery. All five compacts fit in the same size sheath.



The Compact Z-Lock breaks down into six pieces for easy cleaning and maintenance. The handle is made of a thermo-resin; the other components are stainless steel.

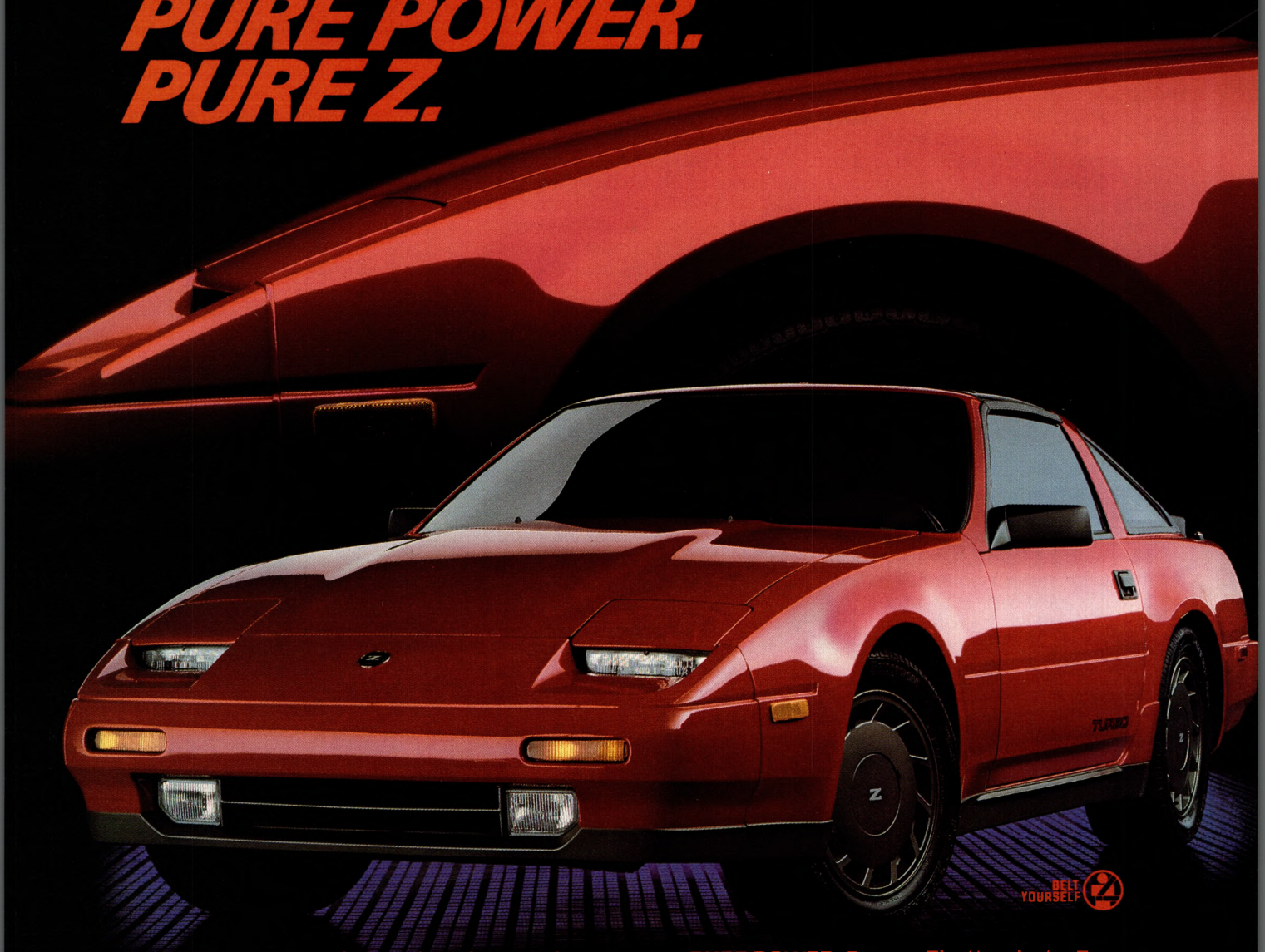
Although I've said it before, I'll say it again: Wenoka is known for its attention to detail. Z-Lock knives are unique in many ways. The butt cap unscrews, as does the Z-Lock button, and the handle comes off. The knife then breaks down into five stainless steel components—blade, butt cap, spring and two piece button—for maintenance and cleaning. It is easily assembled and disassembled.

Z-Locks are named for the ingenious system that secures them in their sheaths. These latter have have an opening into which a button on the knife fits. Depress the button to slip the knife into and out of its sheath.

Wenoka knives are quality tools and deserve quality care. Disassemble and rinse your knife in fresh water after use and let it dry before assembly. A light coating of a moisture displacing oil will also help prevent rust.

The compact Z-Lock 8612 sells for $55.50. See it and the company's other fine products at your nearby Wenoka dealer.

PURE SHAPE. PURE POWER. PURE Z.



PURE SHAPE. Make an already superb sports car better. That's the challenge the Nissan 300 ZX presents to its designers. For 1987, they met the challenge by refining its shape. Lowering the rocker panels. Rounding the front end. Integrating the front air dam. Smoothing every line. Flushing every seam. Nissan calls it ground effects styling. You'll call it sleek. Slippery. Sensuous. It turns you on even before you turn it on.

Nissan didn't stop at the sheet metal. They tightened the suspension. With firmer shocks and springs. A re-engineered power steering system for quicker response. And a beefed-up sway bar for glued-to-the-ground stability. The result: a Z-car of unprecedented handling.

PURE POWER. Power. That's what a Z-car is really all about. Convincingly delivered by one of the world's most advanced engines: Nissan's 3.0-liter V-6. Electronic multiport fuel injection. 5-speed manual. Or 4-speed automatic overdrive. Turbo. Or non-turbo. The 1987 300 ZX moves fast. Stops quick. Without fade. Thanks to vented disc brakes now at all four wheels.

Feel the need for speed? Take the 200 hp turbocharged Z. With a lower rear axle gear ratio to get off the line quicker than ever.

PURE Z. It's a driver's car. For the driver who understands shape. Demands performance. Respects power. The 1987 300 ZX. Pure Z. Your Z. Awesome.

NISSAN

THE QUALITY AND PERFORMANCE IS 300 ZX.

THE NAME IS NISSAN

DIVING MEDICINE

(Continued from Page 30)

versity exercise physiology research laboratories and commercial exercise facilities. While lab testing is essential for research and useful in counseling individuals with particular problems, any healthy diver can estimate his/her aerobic capacity using the performance criteria in Table 1. Those with the 10 MET minimal capacity can safely engage in warm water bottom scratching. They will typically begin to feel tired after approximately 35 minutes of sustained diving and would be wise to limit themselves to one dive per day. Divers who maintain an adequate aerobic fitness level of 12 METs can perform repetitive dives all year under virtually any conditions. When diving under average conditions they work at approximately 65 percent capacity and can dive for about four hours before becoming fatigued. Those who maintain an exceptional aerobic fitness level of 14 METs are ideal buddies. These individuals perform all diving related activities with ease and will most probably reach the safe limits of the no decompression tables before feeling any significent degree of fatigue.

After a period of inactivity or a prolonged intermission from diving, the prudent diver would be wise to estimate his/her capacity using the classification scheme illustrated in Table 1. Sedentary individuals more than 40 years of age should check with their physicians before testing themselves. Those who find their exercise capacity is inadequate for their style and type of diving should train regularly to improve. To be effective, an aerobic training program must satisfy the minimal criteria of duration, frequency and intensity. A vast number of scientific studies have concluded that an optimal physical conditioning program must be conducted for at least 20 minutes, at least three times per week—preferably on alternate days—at a relative intensity between 70 and 80 percent VO_2 max. The relative intensity of exercise is easily controlled by the target heart rate or target pulse technique illustrated in Table 2.

Use of the target heart rate method to control exercise intensity facilities correcting for the desired training effect as well as any daily variations in capacity. As a general rule, heart rate decreases as capacity increases. As illustrated in Table 3, the improvement acquired after several weeks of training is reflected by a decreased heart rate. Individuals who monitor their heart rate during exercise are made aware of their improved capacity and must increase their training intensity to reattain the optimal training heart rate. Likewise, on days when one may be dehydrated, fatigued or otherwise "out of sorts," the heart rate is generally increased. Under these circumstances an individual temporarily decreases his/her training intensity to attain the target heart rate. In this way, undertraining and overtraining are avoided, each training session is performed at the optimal intensity and rapid improvement is assured.

The relatively low average energy requirement of diving, the necessity of maintaining a safe exercise reserve and the logistics of tri-weekly training sessions obviously eliminate diving as an aerobic training activity. Divers therefore, not unlike serious skiers and tennis players, must train aerobically to acquire and maintain the physical capacity required for their sport.

Contrary to conventional beliefs and popular opinion, swimming is probably not the ideal training activity for divers. Swimming is essentially arm and shoulder exercise but divers depend primarily on their lower limbs for propulsion. Finning, swimming with fins and a kickboard, cycling, jogging, rope skipping, or aerobic dancing are good examples of more appropriate leg training activities for divers. A conscientious training program incorporating any or all of these activities should produce noticeable ameliorations in 6-12 weeks. Generally, the most dramatic training effects are observed among individuals who were extremely



unfit when they began. The highly trained typically manifest less remarkable results. Superb athletes may even have to content themselves with the fact that they are training to maintain an excellent physical capacity.

It is axiomatic to state that good health and adequate physical fitness are absolutely essential for diving. Safe, enjoyable and frequent diving should be adequate motivation for all who truly love the sport. Avoid smoking, maintain proper weight and exercise regularly.—L.W. Jankowski.

WOUND MANAGEMENT

Every diver sooner or later is the victim of an abrasion or laceration (cut) that either occurs in the ocean or soon becomes immersed in seawater. Coral cuts, dive knife nicks, sharp shell puncture wounds, sea urchin stings, propeller blade injuries, shark skin scrapes, thong and bootie blisters and other assorted wounds are collected regularly by anyone who ventures below the surface. While these are normally of nuisance degree only, they may become infected and heal irregularly and slowly, with unsightly scarring. On occasion, a small wound that began as an innocuous irritation or small area of inflammation may become a life-threatening infection. The reason is the bacteria that live and thrive in marine waters are not those commonly found on land and the antibiotics commonly prescribed for them may not be effective against ocean-dwelling microbes.

Ocean water provides a saline milieu for microbes. The salt dissolved in seawater, a fairly constant 3.2 to 3.5 percent, is 78 percent sodium chloride. Other constituents—in descending amounts—include sulphate, magnesium, potassium, bicarbonate, bromine, boric acid, strontium and fluorine. The temperature of the surface waters varies with latitude, currents and season. Tropical waters are warmer and maintain a more constant temperature than do temperate and subtropical waters. Shallow and turbulent coastal waters are generally richer in nutrients than the open sea. Although the highest bacterial numbers are usually found near the surface, marine silts, sediments and sand contain diverse bacteria and fungi. In ocean waters having marked differences in density, the greatest concentration of bacteria can usually be noted at the thermocline. This effect is lost in active coastal waters, where the constant mixture creates an even distribution of sediments, microbes, salinity and temperature.

Wounds acquired in the marine environment are soaked in seawater and may be contaminated with bottom sediment, spines and teeth of marine animals, debris scraped from coral or the sharp edges of shellfish, or the venom of stinging coelenterates. Marine bacteria are generally salt-loving, motile creatures that obtain their nutrition from other carbon sources. Because they are used to living

DON'T BUY FINS FROM US.

Orca Industries specializes in diving computers. We developed and tested the first underwater decompression/no-decompression diving computer. We changed the way you dive. We made safety and reliability an underwater reality. We gave you...

The EDGE™



"I was greatly impressed with the way the EDGE™ works and the protection and easy security it gives those of us who have to do frequent up-and-down diving in depths." Eugenie Clark, Ph.D.

"We all liked the EDGE™. The general feeling was that it could add significantly to both bottom time and safety on many dives. — Again, it's a great product." George S. Lewbel, Ph.D.

Thousands of safe EDGE™ dives later we have a proven track record. And we are continuing to develop technological advances in diving computers. Why should we try to sell you fins?

After all . . . you wouldn't buy your diving computer from a fin company, would you?

SEE YOUR LOCAL DEALER, OR WRITE:
ORCA INDUSTRIES, INC.
10 Airport Way
Toughkenamon, PA 19374
Phone: (215) 268-3164

ORCA INDUSTRIES

The EDGE™
...Finally, underwater reliability!

circle #109 on Reader Service Card

in an oxygen-poor environment, they proliferate and thrive in the oxygen-rich environment created by human tissue. The number of bacteria that can denature or "digest" proteins (in other words, invade warm flesh) seems to be greater in the oceans than on land or in fresh water.

The list of marine bacteria includes more than 30 pathogenic species, such as *Aeromonas hydrophila* (commonly found in fresh water; the perpetrator of serious wound infections), *Clostridium perfringens* (causes gas gangrene), *Clostridium tetani* (causes tetanus), *Erysipelothrix rhusopathiae* (causes "fish handler's disease," "speck finger" or "blubber finger"), *Legionella pneumophila* (causes Legionnaire's disease), *Mycobacterium marinum* (implicated in wound infections following dolphin bites), *Pseudomonas aeruginosa* (causes hottub dermatitis) and numerous *Vibrio* species. It is the latter that is of the greatest potential concern to the diving physician (and certainly, to the victim), because *Vibrio* species can cause infections that progress rapidly to a life-threatening condition known as sepsis, where the body is overwhelmed by bacterial toxins.

Vibrio species other than *V. cholerae* (which causes the violent diarrheal disease cholera) are found worldwide and may cause rapidly progressive and life-threatening soft tissue infections. *Vibrio* species are salt-loving, rod-shaped bacteria found in coastal waters adjacent to the United States and in many exotic locations frequented by recreational divers. They grow best at water temperatures of 75-104°F and are rarely found in water colder than 47°F. In medical literature, most infections have been reported in the United States and European coastal regions during the summer months. Whether this is owing to increased numbers of bacteria or increased numbers of people is as yet unclear. Without question, *Vibrio* species are found in tropical waters throughout the year. The two major forms of illness caused by *Vibrio* are gastrointestinal (familiar to those who consume raw shellfish, particularly oysters) and wound infection. Persons who are chronically ill or who suffer immunosuppression (a condition where the normal response to infection is inadequate) seem to be at greatest risk for rapidly progressive infections of the skin and muscle. Such persons include those with diabetes, hemophilia, liver disease (hepatitis, cirrhosis), those undergoing chemotherapy for cancer, AIDS, or who are medicated regularly with corticosteroids (asthma, prolonged severe allergy).

The implication of all this is that your physician (and the hospital laboratory) may have a difficult time identifying the bacteria involved in a wound infection if it is acquired in the marine environment. Furthermore, the antibiotics used by most physicians to treat land-acquired wound infections are probably not adequate to destroy the ocean-dwelling microbes. From bacterial cultures of shark teeth, fire coral, sea urchin spines and ocean water harvested from areas as diverse as the Red Sea and San Francisco Bay, the most efficacious antibiotics have recently been identified. These include the oral drugs trimethoprim/sulfamethoxazole (Bactrim or Septra), tetracycline (and presumably, doxycycline) and a number of antibiotics administered intravenously for more rapid action. Penicillin, ampicillin, erythromycin and cephalexin (Keflex), frequently used for land-acquired wound infections, were not effective in our laboratory evaluation.

The issue of whether to begin taking antibiotics before an infection appears is controversial. Based on a review of the published medical research and our most recent studies, the following recommendations may be made:

1. Minor abrasions or superficial cuts do not require the administration of antibiotics in the absence of an infection. The exception is that any person who suffers from chronic illness as described above would begin to take trimethoprim/sulfamethoxazole (TMP/SMX) or tetracycline (TCN) for three to five days, preferably under the direction of a physician.

THE COLLEGE

FOR DIVING INSTRUCTORS AND DIVEMASTERS
Personalized Career Development and Training

NAUI College is growing rapidly by following a simple formula

1. Actively recruiting bright and ambitious students.
2. Providing exacting educational standards.
3. Creating enjoyable, challenging learning opportunities in a variety of formats, geographical settings, and time parameters.
4. Respecting the needs of each individual student through highly personalized educational and career counselling.
5. Constantly encouraging alumni to help build diving as a professionally promoted and taught - safe, fun activity.

NAUI COLLEGE A COMMITMENT TO EDUCATIONAL EXCELLENCE

Please send General and Admissions information.

Name _____

Address _____

City _____ State _____ Zip _____

NAUI National Association of Underwater Instructors College
27402 Camino Capistrano, Suite 103
Laguna Niguel, CA 92677
in CA 714-582-0186 Collect
CA Res. Call Toll Free 1-800-227-6663
Outside CA 1-800-423-7095 Toll Free

Remember that both drugs are photosensitizers (cause an intensified skin reaction to ultraviolet wavelengths in sunlight) in some individuals. A prompt and vigorous soap and freshwater scrub of all areas where the skin has been broken is basic first aid and should never be forgotten. If you are away from medical care and have started TMP/SMX or TCN, only to witness the onset of an infection (redness, swelling, pain, swollen lymph glands and discharge of pus), add penicillin or cephalexin and immediately seek medical attention.

2. Serious injuries include large lacerations, burns, deep puncture wounds or a retained foreign body. Examples are shark or moray bites, stingray or sea urchin punctures, scorpionfish envenomations and deep coral cuts. These should be vigorously irrigated with sterile normal saline (if available) or disinfected fresh water as soon as possible, to remove debris and seawater. The victim should be immediately transferred to a physician's care, who will explore and properly clean the wound. If available, TMP/SMX or TCN should be administered. Again, if an infection appears despite your best efforts and there will be a delay to physician care, add penicillin or cephalexin to the treatment.

3. Infected wounds should be cleaned as well as possible and antibiotics administered. Seek physician care. If the infection is minor and has the appearance of a classic erysipeloid infection ("fish handler's disease," commonly seen following a nick or scratch during the preparation or handling of seafood), one should add penicillin, cephalexin or erythromycin to the other antibiotic.

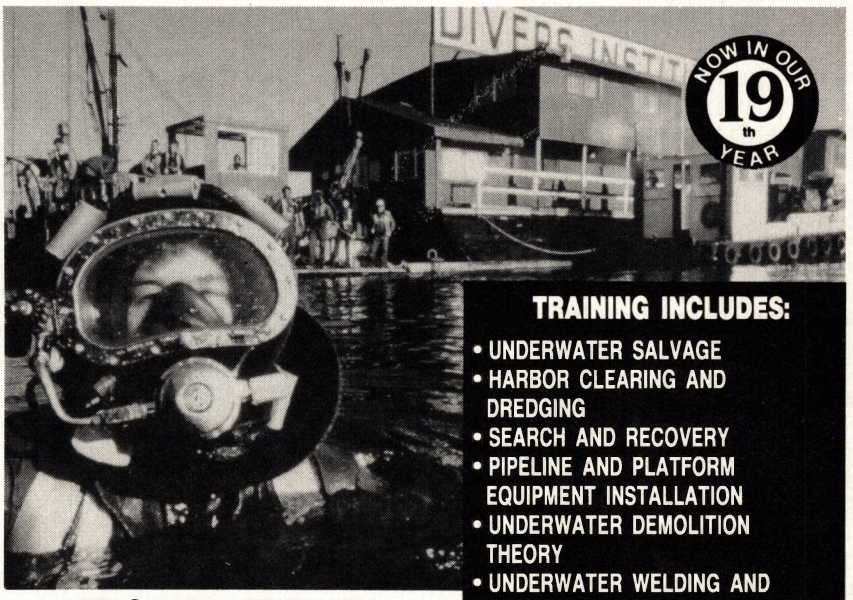
Obviously, anyone who has suffered a serious wound or who has already developed an infection should seek prompt treatment from a physician. However, it is not often a doctor will be with you on a boat at Apo Reef in the Philippines or the Blue Hole of Palau. Always be prepared with a proper first aid kit and have your physician explain the use of all medications before you embark on your trip. Keep your tetanus immunizations up to date.—Paul S. Auerbach.

PHOTO INSTRUCTOR GUIDE

The NAUI/Nikon Underwater Photo Course Instructor's Guide is now available from the National Association of Underwater Instructors (NAUI). It covers course organization and promotion, teaching methods, has an appendix packed with ready to use forms, excellent reference information and a final exam. It offers a flexible, modular approach to diving's most popular specialty course.

A practical, "how to" publication, the guide is available from NAUI Headquarters, P.O. Box 14650, Montclair, CA 91763-1150.

D-I-T GUARANTEES PROFESSIONAL DEEP SEA DIVER TRAINING



WE GUARANTEE YOU:

- PROVEN COMMERCIAL DIVING INSTRUCTORS
- NATURAL WORK ENVIRONMENT (NOT POOLS AND TANKS)
- OPEN WATER DIVES TO TWO HUNDRED FEET
- USE OF EQUIPMENT CURRENTLY BEING USED IN INDUSTRY
- TRAINING ACCEPTED IN INDUSTRY
- PROFESSIONAL DIVER TENDER INSTRUCTIONS
- STRAIGHT TALK—THE WAY IT IS

TRAINING INCLUDES:

- UNDERWATER SALVAGE
- HARBOR CLEARING AND DREDGING
- SEARCH AND RECOVERY
- PIPELINE AND PLATFORM EQUIPMENT INSTALLATION
- UNDERWATER DEMOLITION THEORY
- UNDERWATER WELDING AND CUTTING
- UNDERWATER PHOTOGRAPHY AND VIDEO
- RIGGING
- PNEUMATIC AND HYDRAULIC TOOLS
- DEEP DIVES TO TWO HUNDRED FT.
- DEEP DIVES ON MIXED GAS (HELIUM & OXYGEN)
- PROFESSIONAL TENDER OPERATIONS
- HULL CLEANING AND REPAIR
- COMPRESSION CHAMBER OPERATIONS
- AND MUCH MORE!!!

APPROVED BY:
Dept. of Education as an eligible institution for the Guaranteed Student Loan, National Direct Student Loan, PELL Grant and Supplemental Educational Opportunity Programs. Washington State Commission for Vocational Education for Veterans Training.

MEMBER OF:
National Assn. of Trade and Technical Schools (NATTS)
Assn. of Commercial Diver Education (ACDE)
Assn. of Diving Contractors (ADC)
Undersea Medical Society (UMS)
Institute of Diving (IOD)
Wash. Assn. of Trade and Technical Schools (WATTS)
Better Business Bureau (BBB)

GET YOUR CAREER STARTED TODAY

DIVERS INSTITUTE OF TECHNOLOGY
(206) 783-5542
D.I.T. is accredited by Accrediting Commission of the National Association of Trade and Technical Schools.

P.O. BOX 70312, SEATTLE, WA 98107

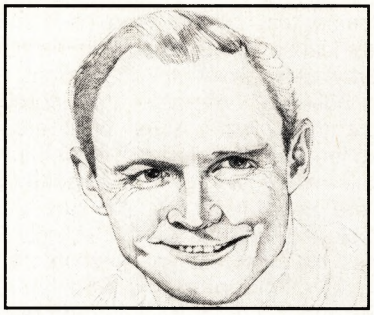
Send for our catalog. It contains full disclosures: course outline, employment statistics, instructor qualifications, tuition refund policy, standards of progress, financial assistance, etc.

SDM - 4

NAME
ADDRESS
CITY ST. ZIP
PHONE

Technifacts

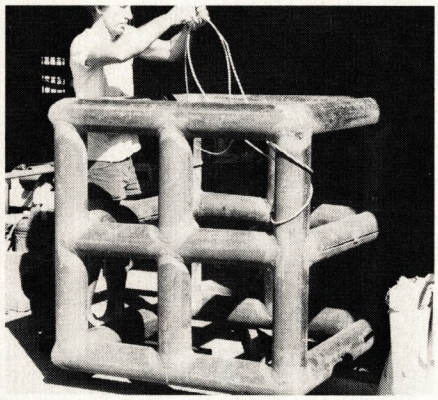
BY E.R. CROSS



One of the principal objectives of Technifacts is to disseminate information related to the technical aspects of diving and allied aquatic subjects. Chiefly, the information is generated through correspondence with divers, marine technicians and others interested in the underwater environment. Other subjects are produced by personally visiting and studying sources of topics potentially of interest to the diving reader.

ARTIFICIAL REEF FOLLOWUP

In September 1986 we discussed the potential advantages of various fish aggregation devices, including those installed as artificial reefs. One contributor of information and photographs was Professor Robert A. Grace, University of Hawaii at Manoa, Department of Civil Engineering. Shortly after the issue was published, Professor Grace wrote: "I thought you might explain in a future issue of SKIN DIVER that the module shown on the left hand side of page 49 is a steel system, not one of the 40 odd concrete modules that went into the artificial reef illustrated in the right hand picture. I tested three steel modules for their sliding stability under strong wave/surge conditions. One module had circular members, one square members, and the other modules, a half circular forebody and a half square afterbody. Steel pipe was used for these so they could be ballasted with lead to different degrees. This was done to test-tune the module to whatever surge was present on test days."



photo/Robert A. Grace

In the development of artificial reef systems it is necessary to arrive at a configuration that will withstand whatever current or surge is present at the site. The type of bottom will also dictate the specific design and shape. This is especially important for those modules that come in contact with the bottom.

Professor Grace is particularly well qualified to work with shapes of different sizes and weights to be used in the ma-

(Continued on Page 68)

There's Never Been a Better Time to Do What You Really Want in Life.



The demand for PADI College Graduates has never been greater than *now*. Hundreds of the finest dive stores and resorts in the world are asking for instructors from our famous Gold Curriculum Course. In fact, we have over 283 positions open right now — many of these offer starting salaries of $18,000 to $25,000 a year.

If being this much in demand interests you, contact the College Dean, Jim Williams, he'll take it from there. Remember, they're waiting for you.

PADI International College
1243 East Warner Avenue
Santa Ana, CA 92705

Call toll free:
Inside U.S.: (800) 235-3434;
Inside CA: (800) 223-8697
Outside U.S., call: (714) 540-7234
Telex: 678400 PADI INT SNA

If writing, include age, address and phone number.

Put the legend behind you "RANGER"



Standing behind the legend

Technisub pneumatic guns are backed by over 2,400 Aquacraft II/Technisub dealers worldwide, and a 2-year warranty program.

Aquacraft II/Technisub
7992 Miramar Road
San Diego, CA 92126
(619) 271-7000

DEALER INQUIRIES INVITED

technisub

A Watersport Celebration



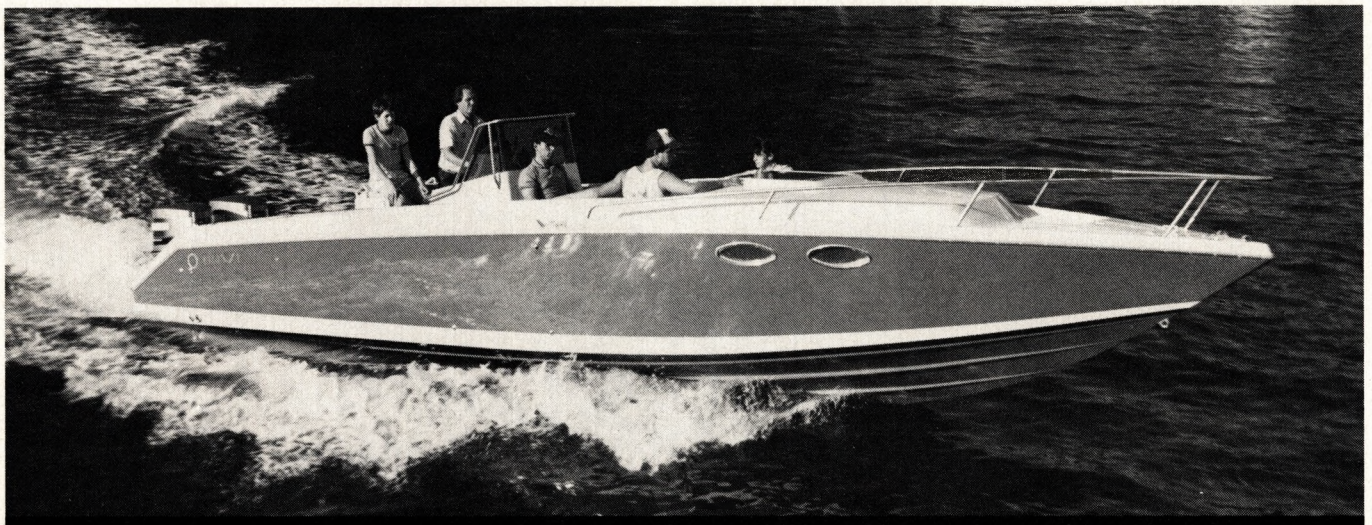
For more than 30 years, you've been depending on us for the best, most innovative products in the sport: a full line of wet and dry suits, accessories for both, plus all the gear that goes with it.

From suits to snorkels... from regulators to refinements in tank design... from buoyancy control systems to basic fins... always insist on Parkway, "THE STANDARD," for all your diving needs.

Tell your local dealer that you want to celebrate. Ask him to show you what's new for 1987. There's more color, more features, more product, more fun. Ask for your FREE, full-color catalog or contact us for one.

THE PARKWAY SYSTEM

241 Raritan Street
South Amboy, NJ 08879

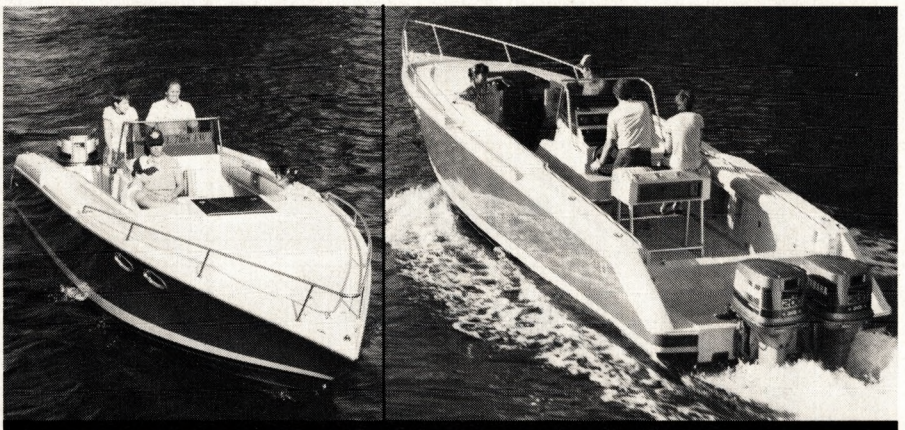


The Donzi ZF33

TEXT AND PHOTOGRAPHY BY STEVE LUCAS

Gentlemen, ladies, boys and girls, get ready to start your engines! That's what pops into my head every time I see one of the Donzi Z series boats. They just look like they were made for nothing more than going fast. And, even though they do go very fast, the notion that they do nothing else couldn't be farther from the truth.

When the manatees are in the Fort Lauderdale waterway it's a long, slow run from Pete Marzano's Twin City Marine just south of the airport, out to the open ocean. The whole ride takes about 45 minutes and it's tough to keep your hand off the throttle when you know you could do the whole trip in 5 minutes. All the way, the Donzi ZF 33 patiently holds back, waiting for its chance. But it's tough for the pilot and passengers to be so patient when this baby is just aching to get up and show her stuff.



Donzi's ZF 33 offers almost 200 square feet of walkaround room. Freeboard averages 34 inches and the hull draws only 18 inches of water. With twin 200 hp outboards, the ZF 33 can run at nearly 60 mph! Everything about the vessel is class, from the stainless steel seat bases to the leather steering wheel.

But I guess the slow ride is not totally wasted. It gives you lots of time to show off your new status symbol. And, believe me, the heads *will* be turning. The ZF is a sleek runner and its twin 200 hp Yamahas are just waiting to scream. If you choose, you can make it run nearly 60 mph! It's as classy as a Mercedes but Donzi's attention to detail makes you feel as if you are riding in a Lamborghini.

So, what does that mean to you, Mr. or Ms. Diver? Well, besides having a lot of people looking at you when you go by, try having breakfast in Fort Lauderdale, conch chowder for lunch in the Bahamas (and a couple of dives of course) and be back home in time for the evening news.

Even though their name sounds Italian, Donzis are really an all-American breed. Older promotional material says the boat, "is built for an owner who will simply never compromise for anything less than the very finest." Example: Donzi is so bent on perfection it refuses to hire a night shift. The company simply doesn't believe it can get the kind of quality craftsmen needed to build its boats to work late at night. Donzi material says the company uses, "only craftsmanship of the highest order, performed only in the exacting light of day."

With more than two generations of boats to its credit, Donzi is not noted for bringing out new boats just for the sake of a new year. So don't expect your Donzi to become obsolete very soon. At 33'1", the ZF's 9 foot beam gives you almost 200 square feet of walkaround room. In addition to being fast, she is also maneuverable and draws only 18 inches. The freeboard averages 34 inches and the average cockpit depth is 28 inches. At 4,200 pounds, she carries 270 gallons of fuel and 30 gallons of fresh water.

Constructed fully of handlaid fiberglass, the ZF's molds are constantly buffed and rewaxed to ensure that each hull is perfectly cast. Once laid, it is allowed to cure overnight before being removed from the mold. This extra degree of patience produces a boat that looks like porcelain. It takes two to three times as long to build—compared with other boats of the same size—and has few options. You don't really need them since almost everything comes standard. Donzi refuses to play the stripped down

sales game and delivers each boat just the way they feel you will want it the day you first turn on the engines.

The boat's components are gauged only by function, quality and prestige. Example: The leather steering wheel is the same type found on European Grand Prix racing cars. Its cost is several times that of a plastic copy, but cost is not a consideration. Another example: The vinyls used for seating material are seven times stronger than standard marine materials. And, so it goes throughout the boat's entire construction.

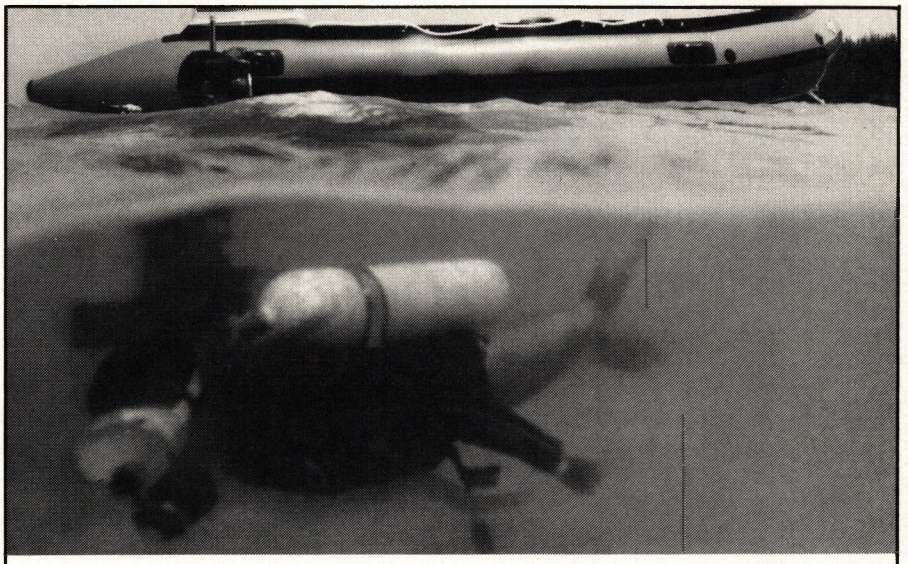
With premium grade hardware, the Donzi will look great years after others have started to corrode. All seat bases are fabricated of welded stainless steel. The railings are chrome over brass or chrome over 316 stainless. The lavish console is outfitted with all VDO blue line instruments and warning systems just like fine European sedans and sportcars.

Console switches are pressure sensitive and the entire electrical system has circuit breakers instead of fuses. Engine mounts and trim tabs are through-bolted. One hundred ten volt shore power is standard and a Kenwood AM-FM stereo system is built into the forward cabin. Sleeping three, the cabin also contains a galley, portable head, ventilated port lights and storage compartments.

All the topside storage and a freshwater washdown system are hidden in the walls and deck. If you like to fish as well as dive, you will find ten inch deep rod boxes that will hold eight rods up to seven feet long. The deck also contains a 35 gallon live baitwell and several insulated boxes. To complete the package, all safety equipment required by the United States Coast Guard is included. When you take delivery of your ZF 33 all you have to do is get in the cockpit, turn on the key and go!

Along with its exceptional luxury is the Donzi ZF 33's impressive price tag. With twin 200 hp Yamahas, the fully equipped, ready to run price is $74,995. Compared with stripped down boats in this general class the price is reasonable when you add on the accessories necessary to bring them up to the standard Donzi level. If that price is a bit more than you are ready to pay, you might want to take a look at the ZF 33's little sister, the ZF 23. It has the same basic appointments but a considerably lower price.

For the name of a Donzi dealer near you contact: Donzi Marine Corporation, 7000 Bradenton Road, P.O. Box 987, Tallevast, FL 34270; (813) 355-9355. For a set of color catalogues featuring the Z series send $10 with your request. In South Florida, contact Pete Marzano, President, Twin City Marine, 1495 Griffin Road, Dania, FL 33004; (305) 920-6644. Or, in Pompano Beach, FL, Twin City Marine, 1207 S. Federal Highway; (305) 785-7080.



TAKE THE PLUNGE. GO FOR QUALITY.

Achilles' latest and greatest inflatable: Black Magic SK-140. Rugged, roomy and ready for action. With corrosion resistant self-locking aluminum floorboards and plenty of room for all your diving gear. When you're not diving, they make excellent utility boats. To describe Black Magic in one word: macho! Other models come in red or gray. Backed by our five year limited warranty. No matter what your boating needs, you're sure to find an Achilles that's right for you.

ACHILLES INFLATABLE CRAFT
390 Murray Hill Parkway
East Rutherford, NJ 07073 (201) 438-6400
1407 80th Street, S.W., Everett, WA 98204 (206) 353-7000

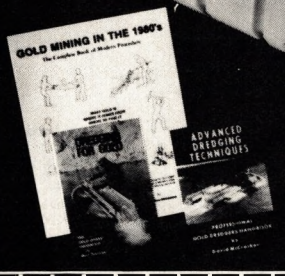
Achilles
FIRST IN QUALITY

GOLD! TREASURE!

Make your hobby pay off. From panning to dredging to metal detection, gold is a thrill to find. Let us show you how to mix profit with your diving fun. Send for our free catalog.

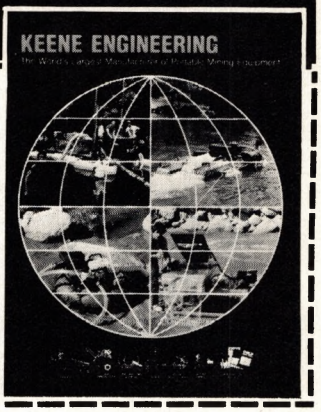


5" Surface Dredge
Model 5538



3 GREAT BOOKS
Making your mining more productive — "Dredging for Gold" for beginners. "Advanced Dredging Techniques" — for the experienced.

FREE CATALOG
A gold mine of sluices, pumps, dredges, tools, diving equipment, books and detectors. Send for your FREE copy.

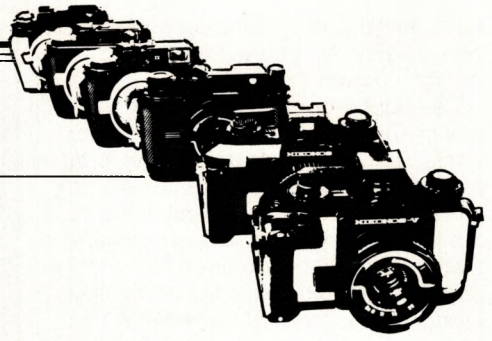


KEENE ENGINEERING, INC. SD
9330 Corbin Ave., Northridge, CA 91324 • (818) 993-0411
☐ Please send FREE CATALOG
☐ "Dredging For Gold." $7.95 (CA residents add 52¢ tax)
☐ "Advanced Dredging Techniques." $7.95 (CA residents add 52¢ tax)
☐ "Gold Mining in the 1980's." $15.95 (CA residents add $1.04 tax)

Print Name_____
Address_____
City_____ State_____ Zip_____

SDM'S

Nikonos Photo Course



LESSON III: Camera Electronics

TEXT AND PHOTOGRAPHY BY GERI MURPHY

The thing that sets the Nikonos V apart from all other amphibious 35mm cameras and prior Nikonos models is its electronic circuitry. This is a very smart camera that can take perfectly exposed pictures or warn you conditions are not quite right. It makes underwater photography a whole lot easier.

THE BRAIN

Nikon describes this electronic circuitry as the Nikonos V's brain. It is basically a miniature computer preprogrammed for specific functions. The system is built into a flat metal strip that fits into the top of the camera body, under the viewfinder.

This circuitry is similar to the electronics designed for some of Nikon's most professional SLR cameras.

POWER SOURCE

As with all computers, the Nikonos V brain relies on a source of electrical power. In this case, it is a small battery in the base of the camera body.

Nikon gives you a choice of using either one, three volt battery or a pair of 1.5 volt cells. The Nikonos V manual provides specific information on what batteries can be used.

How long do the batteries last? That depends greatly on the age of the batteries, amount of camera use and outside temperature. Cold weather/water use shortens battery life. You should always carry a spare set of fresh batteries.

Does a dead battery mean the camera will no longer operate? Not entirely. You do lose the automatic exposure function, but the camera will fire on the M90 setting. This is a mechanical shutter mode operating at 1/90 second.

DATA INPUT

As with all computers, the Nikonos V brain depends on data inputted by the operator. In this case it is very simple.

First, set the ASA/ISO film speed. This control is a dial on the top left of the camera, just under the rewind crank.

Next, dial in the shutter speed you intend to use. This control is on the top right side of the camera, just under the film advance lever. The shutter speed selector offers a wide range of options ranging from A for automatic to six different electronic shutter speeds.

Once the brain knows the film speed and shutter mode, it will operate automatically.

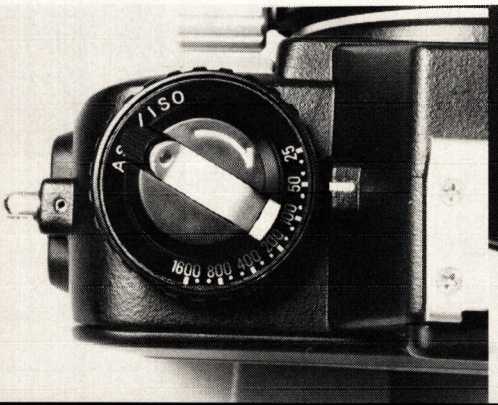
TTL SENSORS

The brain is also equipped with a pair of electronic eyes. These are deep within the camera body, near the shutter. They are called sensors—specifically, silicone photo diode (SPD) sensors. The sensors measure only that amount of light that has already passed through the lens and is striking the shutter.

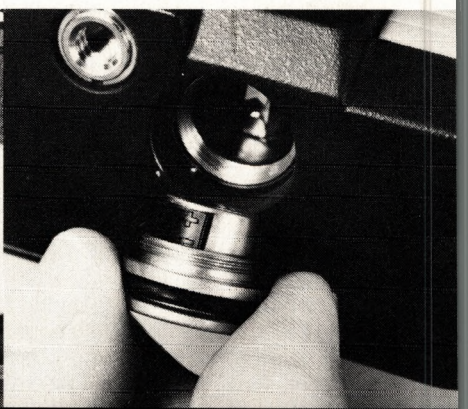




Depressing the shutter button halfway will activate the Nikonos V's computer brain.



Dialing in the ASA/ISO speed is the first step in setting up the automatic exposure.



The camera's electronics are powered by one 3 volt battery or two 1.5 volt cells.

This system is known as TTL metering. It is a very accurate and dependable method of calculating automatic exposure.

The two eyes perform different jobs, but often work in unison. The top sensor measures only ambient sunlight rays striking the film. The bottom sensor measures only the incoming light from an electronic flash or multiple flash units. This sensor has to be really quick since the duration of the electronic flash is only 1/500 second. The two sensors feed this data into the camera's brain so that it can instantly compute the correct exposure setting.

EXPOSURE CONTROL

The Nikonos V exposure system is based on aperture priority. This means you manually set the lens aperture and the camera's brain automatically selects the shutter speed. If you set the shutter speed selector dial on A the brain will automatically select the right speed. With available light, that can be anywhere between 1/30 second to 1/1000 second. If an electronic flash (TTL type) is used, the brain will select 1/90 second for flash synchronization. If the correct exposure is out of the range of the camera settings, the brain will give you a number of different warnings, depending on the problem.

DISPLAY WINDOW

The viewfinder of the Nikonos V is a little bit like the video screen of a computer, but much more simplified. Spread out along the bottom of the viewfinder window is an electronic data display. This is how the camera brain communicates with you and tells you exactly what is happening. This display consists of a single row of symbols and numbers. They light up when certain information is being transmitted by the brain.

For example, the arrow at the left of the screen will light up if there is too much light coming through the lens. This is the overexposure warning.

An arrow at the right of the screen lights up when there is too little light for correct exposure. This is the underexposure warning signal.

Next to the right arrow there is a tiny lightning bolt. This lights up when the flash is ready to fire. The appearance of this light means the shutter is set on 1/90 second if the camera is on automatic. This symbol transmits even more information, which we will explain in future lessons on flash.

Between the exposure arrows there are six numbers. From left to right they read: 1000, 500, 250, 125, 60 and 30. These correspond to the shutter speeds of the camera. When the camera is set on automatic, one of these will light up. The brain is telling you what speed it has selected to match the aperture setting. If you are not satisfied with it, change the aperture. With your eye to the viewfinder and one hand adjusting the aperture control, you can achieve the correct exposure combination.

Should you decide to turn the selector dial to a specific shutter speed (such as 1/60 second), the corresponding 60 will light up in the display window. If it is the right shutter speed for the selected aperture, everything will appear fine. However, if it is the wrong shutter speed, a number will flash. This is the brain's way of warning you of an incorrect exposure. The flashing number indicates the correct shutter speed for the chosen aperture. You can correct the problem by changing either the aperture or the shutter speed setting.

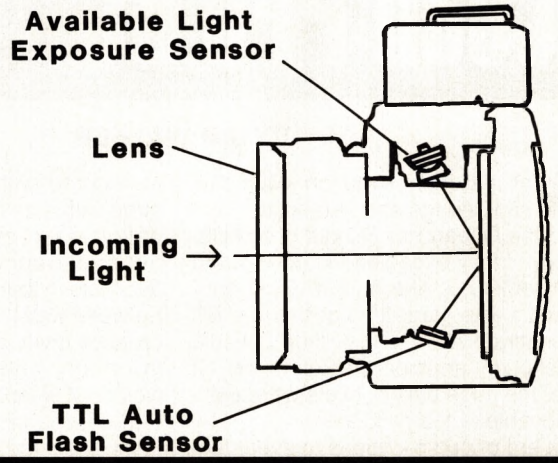
MORE THAN AUTOMATIC

As you can see, the Nikonos V contains a remarkable computer brain. It does a lot more than just control exposures automatically. It keeps track of exposure controls and reports this information to you via the viewfinder display. It is the photographer's helper and coach all wrapped up in one. Even professional photographers find this kind of feedback to be a tremendous help in achieving great photos.



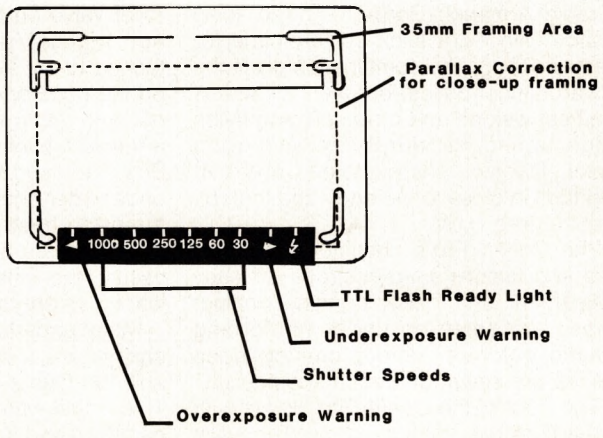
Light passing through the lens is reflected off the shutter and into the light sensors deep withing the camera.

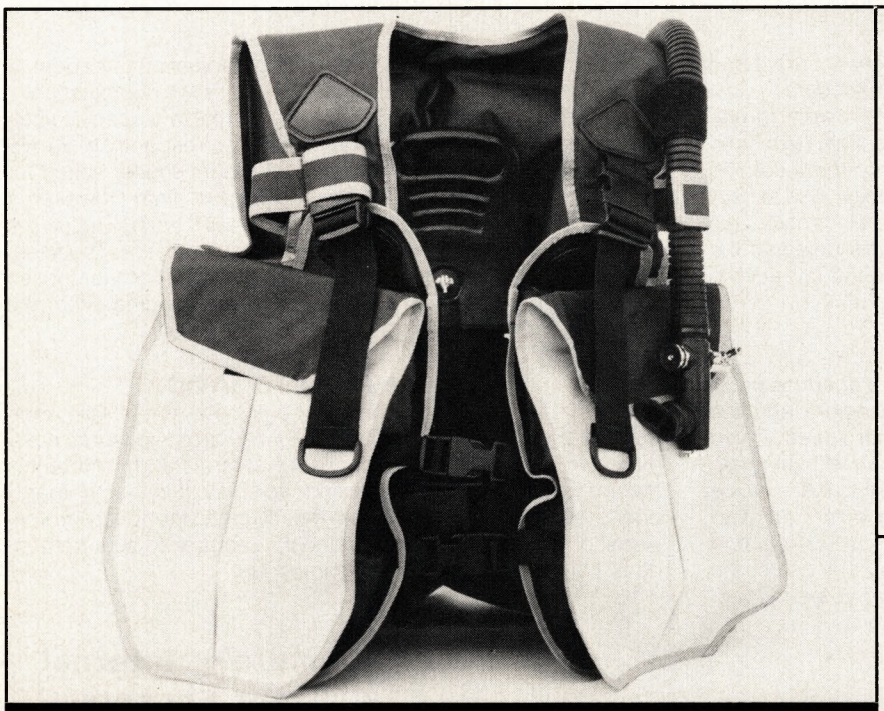
Camera's Internal Light Sensors

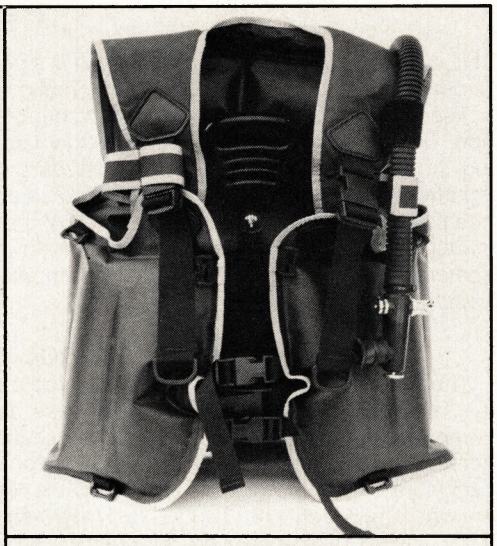


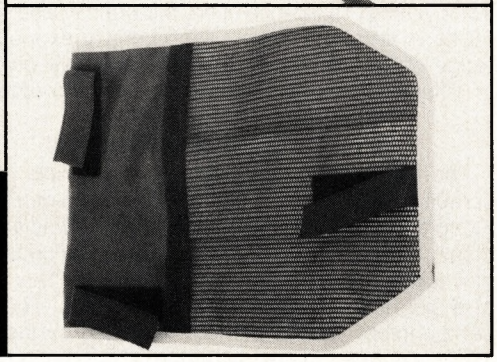
Above: The Nikonos V's internal light sensors. The upper sensor gauges available light and the lower works with an electronic flash. Below: The viewfinder display includes an overexposure warning arrow, six shutter speeds, an underexposure warning arrow and TTL flash ready light.

Viewfinder Data Display









photos/Bonnie J. Cardone

Ocean Pro BC

Simply Adaptable

BY JIM WALKER

"Well pardner, strap on your pink saddlebags and vamoose." As I carried the Ocean Pro BC out of the DEMA show, I fully expected the door guard to say something like that. It didn't happen, and I was glad. It's not that the BC was unattractive, it's just that I would have chosen another pocket color. Of course, the huge pink pockets were easily removable—I learned later.

In an era of complications to every facet of daily life, the Ocean Pro takes a unique stand: rugged simplicity combined with adaptability. The former is provided by the BC's sleek, bladderless design, and the latter by a variety of adjustments and removable pockets.

The Ocean Pro BC is constructed of durable Armanol (Cordura/Antron fiber) coated with extra thick polyurethane for waterproofing. The combination gives the BC an almost bulletproof feel. All seams are heat welded and have sewn-on nylon edge taping for durability and good looks. The jacket is contoured and baffled to fit in close to the body and thereby reduce drag U/W.

The Ocean Pro's shoulders are padded and feature snap-in straps for easy adjustment and quick donning/doffing. These are sewn on under reinforcing plastic patches. Velcro closing hose guides are sewn onto each shoulder.

The front of the Ocean Pro closes with two adjustable, snap-in straps. The waist is secured with either a nylon webbing strap with a snap-over buckle or a combination waist strap with Velcro closing neoprene comfort band. This latter is available in four sizes and adjusts to fit in-between waists. As its name implies, it increases diver comfort by holding the BC in snugly and helping distribute the weight of a tank (topside) on the hips.

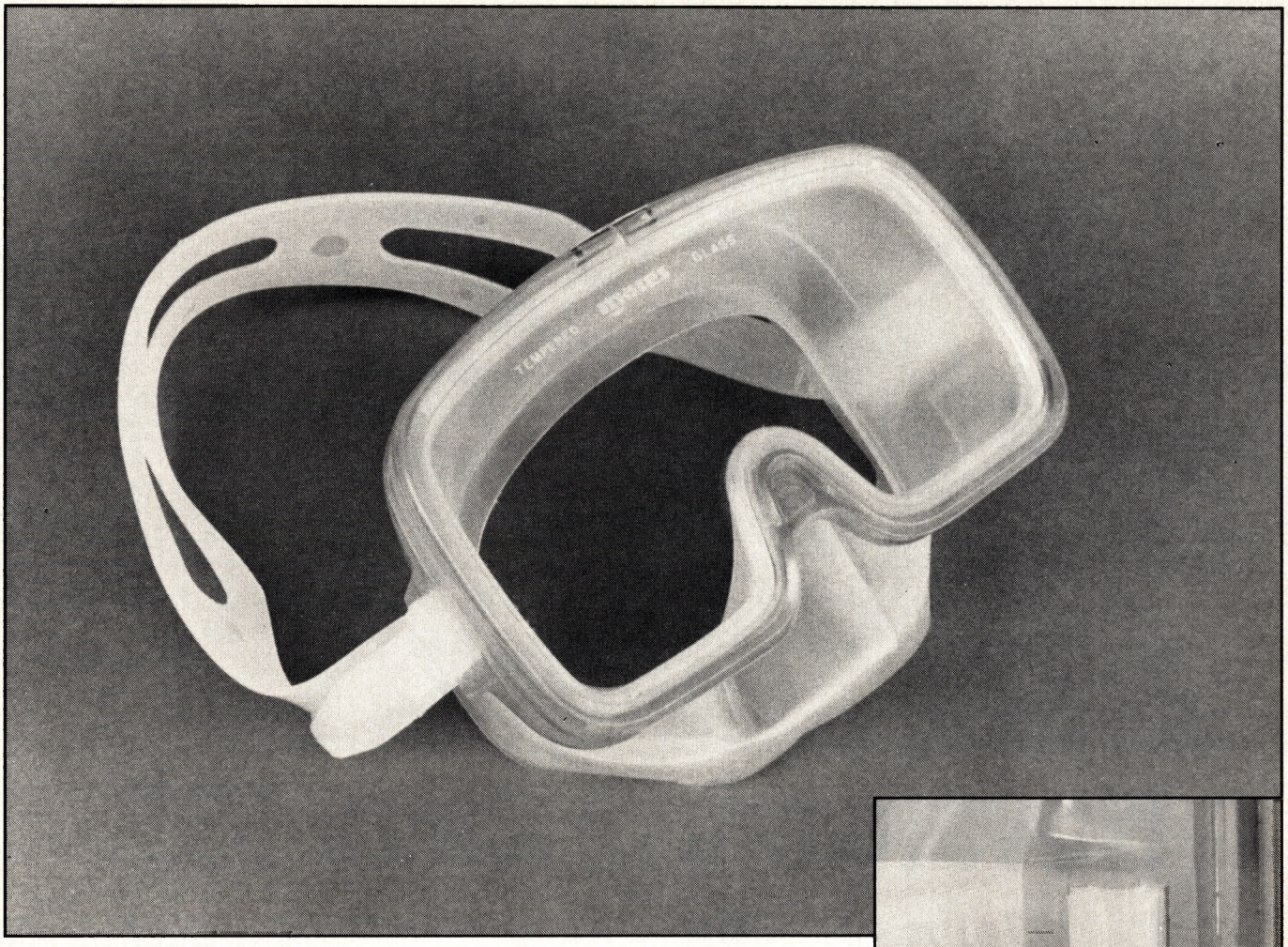
The Ocean Pro's plastic backpack features a curved tank support and an adjustable webbing band with stainless buckle, Velcro tab and rubber non-slip insert. This collapsible arrangement allows the entire BC to be carried in a small gear bag or suitcase. (I carried one in my suitcase back from the DEMA show.)

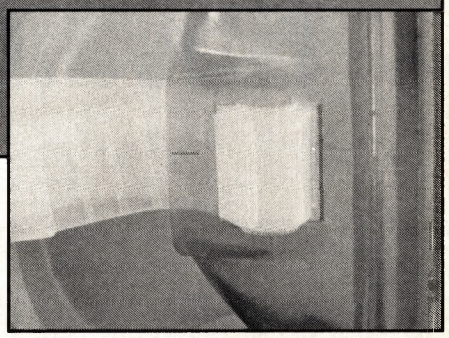
The Ocean Pro has an overpressure relief valve on the back and a combination manual/power inflation hose attached to the left shoulder. Pulling down on the hose opens a valve on the shoulder and vents the jacket. This hose has a Velcro tab to keep it in place. With other BCs I've found such tabs hard to reattach underwater once they've pulled loose, so the nylon hose guide sewn onto the left shoulder was a pleasant surprise. It will assure the inflation hose is where you want it when you need it.

Many experts feel CO_2 inflation mechanisms are a thing of the past on BCs, and the Ocean Pro comes without one. This is fine with me. It's one less thing to care for—and in keeping with the rugged, basic nature of the jacket.

For those desiring a streamlined, hydrodynamic BC, a pocketless Ocean Pro is the perfect choice. However, strap guides are sewn onto the BC so that one or two expandable 9.5 x 12.5 inch pockets can be attached in moments. These are big enough for a Nikonos, tools, abalone or possibly even a just-barely-legal California lobster. They feature Velcro closing top flaps and full mesh backs for quick drainage. And, color-wise, you can pick pockets to complement, contrast or even clash with your jacket. (Oceanic will soon offer a variety of pocket shapes.) If you can't fit everything in the pockets, there's also a plastic D-ring attached to the lower edge of the Ocean Pro.

You can get the Ocean Pro in three versions: The deluxe BC comes with two pockets and the waist strap/comfort band and retails for $357. It comes in royal blue, pink or lavender. The standard BC comes with one pocket and a waistband only. It is available in the same colors and retails for $328. The economy BC comes with the waistband only and no pockets. It's only available in black and retails for $294. A deluxe BC kit ($30) includes one pocket and the comfort band. This will upgrade a standard Ocean Pro to deluxe. Pockets (in royal, pink or lavender) are available for $10 each and comfort bands are $20. You can strap 'em all on at your Oceanic dealer.





photos/Bonnie J. Cardone

Pull on a strap end to tighten the Corona.

MARES CORONA MASK

For Small Faces And Small Budgets

BY JIM WALKER

Ah! Picture it: the drops of moisture condensing on the cool glass of your Corona as you sit on the sunny deck of a dive boat. You're looking good—in step with the latest trend. Sounds refreshing doesn't it? Wrong, this isn't about beer. We're talking about the Corona dive mask. And, what are you doing sitting in the sun with your mask on?

The Corona, from Mares/SeaQuest, is right in step with the current fashion in dive masks: attractive colors, low volume, wide view and comfort. But, it's for smaller faces and smaller budgets. It utilizes a wide single lens of tempered glass set into a tough, lightweight polycarbonate frame, available in translucent red, blue or fuchsia. These colors complement those of snorkels, BCs and fins in the SeaQuest/Mares line.

The Corona's silicone rubber skirt is soft and features a double face seal for comfort. Silicone has the added advantages of being hypoallergenic and resistant to breakdown by sunlight and ozone (but keep it away from black rubber products, which can cause yellowing). The silicone skirt also allows added light to enter the mask. This latter helps illuminate the faces of underwater models, enhancing photography. The skirt keeps the mask frame well away from the face so there are no pressure points. This also allows easy access to the nose pocket.

Only five and three-fourths inches wide, the Corona is designed for narrower faces—so it will fit many adults as well as children. It offers a wide field of view, plus low volume, which translates to easy clearing underwater.

The Corona's silicone rubber headband is wide at the back and has a textured inner surface and three large holes to help it remain in position. The strap ends pass through slots in the mask frame. This, and ridges on the strap, allow the wearer to tighten the headband with one hand by pulling on a strap end. To loosen the headband, remove the mask to release tension on the strap, then pull the ends back through the slots in the frame.

One of the nicest features of the Corona mask is its price. At $24, it's perfect for the diver on a budget and the underwater photographer who wants to have several masks, in different colors, to match the gear of underwater models. The Corona might also be a good choice if you're introducing a gaggle of kids to snorkeling and need easy to operate masks and a total price tag that won't require time payments.

You can try on the Corona and other Mares masks at your Mares/SeaQuest dealer. For dealer information contact SeaQuest, Inc., P.O. Box 1397, Carlsbad, California 92008.



Novamarine Navy 535

A Compact Superboat

TEXT AND PHOTOGRAPHY BY GEORGE COZENS





Novamarine 2 of Olbia, Italy produces a wide range of inflatable boats. The Navy 535 features a deep V-hull, formed by a rigid, laminated hardwood keel. It offers easy planing and excellent tracking. The large air chambers and wide beam offer lots of stability and, according to the manufacturer, the 535 will stay afloat even with all three chambers deflated.

Novamarine 2 of Olbia (Sassari), Italy, produces a wide range of inflatable boats, spanning 16 basic models in three different classes. The smallest is the Navy 305, a four passenger, eight foot yacht tender. The largest is the RH 1000, a 32 passenger, 29′10″ rigid hull behemoth, which also comes in a 340 horsepower, twin turbo diesel, jet drive version.

More practical to most divers than these extremes, however, is the inflatable reviewed this month, the Navy 535. With an overall length of 12′10″, the Navy 535 is a midline boat, but it exhibits the same quality materials and construction methods used in the larger and more expensive models.

The Navy 535 is one of Novamarine 2's most popular boats for divers for a very good reason: It is safe. According to the manufacturer, this boat will maintain its trim and remain almost level even when the full load of equipment and passengers are placed on one side. If the boat should become flooded to the gunwales, it will settle in the water by only an inch or two. Additionally, Novamarine 2 claims that owing to the floorboard and keel design, the boat will still stay afloat in the very unlikely event all three buoyancy chambers are deflated.

The Navy 535 offers good speed and

UNDERWATER COMMUNICATIONS



- Now everyone can share the excitement of Scuba Diving with our *clear* underwater communications.
- The systems used by: The Cousteau Dive Team, U.S. Navy, U.S. Army Special Forces, Epcot Center, etc.
- Dealer inquiries invited.

Ocean Technology Systems
2610 Croddy Way, Unit H
Santa Ana, CA 92704
(714) 754-7848 TELEX: 262189 OTS UR

performance. The deep V-hull, formed by the rigid, laminated hardwood keel and braced by the hardwood/plywood floorboards, provides good directional stability or tracking, and helps the boat to plane at fairly slow speeds.

The relatively light weight of 155 pounds and compact size when packed for storage or transportation lend great versatility to the Navy 535. It can be easily assembled and disassembled by one or two persons in a fraction of an hour. Literally, this boat can be transported and launched just about anywhere. Despite its short 3.9 meter length, it provides a surprising amount of usable space, mainly because of the square bow.

Eighteen inch diameter tubes and a 5'11" beam give good lateral stability with more than enough buoyancy to support six passengers or four divers with gear. The rated load capacity is a hefty 1,760 pounds—more than 11 times the boat's own weight.

Construction of the Navy 535 begins with a fabric of tightly woven 1,000 denier Trevira polyester. This material, known for its ruggedness and resistance to stretching, is then treated with an elastomer to improve the bond between the fabric and the adjacent layers of neoprene. Two layers of neoprene are next applied to the inner surface of the fabric in two separate calendering processes (operations where the neoprene is bonded to the fabric under high heat and pressure). Another layer of neoprene is calendered into/onto the outer surface of the fabric, followed by a layer of 100 percent Hypalon. Constructed in this manner, the material exhibits strength and dimensional stability, owing to the Trevira polyester; airtightness and suppleness, because of the three layers of neoprene; and resistance to abrasion, sunlight, ozone, heat and saltwater, owing to the layer of Hypalon. The material is then cut into the desired patterns. Separate pieces are joined together with seams made by overlapping adjacent edges and hand-gluing the mating surfaces with a special two component rubber adhesive. Each seam is given additional reinforcement with a one and one-half inch wide tape bonded to its inside surface.

In the completed boat, the tubes contain three independent air chambers, each with its own noncorrodible, low profile valve. These valves screw into place—for easier maintenance—and offer two stages of protection against air leakage: an inner one-way valve for inflation and an outer O-ring sealed cap.

Skirting the entire outboard edge of the tubes is a large Hypalon rubrail. Hypalon is used for its resistance to sunlight and because it does not mark a fiberglass boat when secured alongside.

Attached to the forward half of the side tubes, near the top, are lacing cuffs, to which are tied the one inch diameter Dacron grab lines. Since they are forward,

(Continued on Page 70)

RECEIVE THE FINEST INSTRUCTIONAL TRAINING. . .

BECOME A NAUI INSTRUCTOR

Instructor Training Courses Offered~

APRIL
Chicago, Illinois
Guam
New Zealand

MAY
Oahu, Hawaii
Chicago, Illinois
Dallas, Texas
Ginnie Springs, Florida
Bridgeport, Connecticut
San Marcos, Texas
Thailand
Saudi Arabia

JUNE
Kingston, Rhode Island
Hawaii (Big Island)
Ventura, California
Chicago, Illinois

JULY
Santa Cruz, California
San Diego, California
Chicago, Illinois
Oahu, Hawaii
Philippines
Indonesia

AUGUST
Seattle, Washington
Chicago, Illinois
Burlington, Vermont
Amherst, Massachusetts
Malaysia
Thailand

SEPTEMBER
West Palm Beach, Florida
Houston, Texas

Monthly courses also available at NAUI Professional Development Centers in Key Largo, Florida and Laguna Niguel, California.

For a complete course list with dates and contact information, call or write

NAUI Headquarters
P.O. Box 14650
Montclair, CA 91763-1150
714/621-5801



SDM'S

U/W Video Course

Adding Interest To U/W Videos: Cut-In, Cut-Away, Overlap

TEXT AND PHOTOGRAPHY BY JIM AND CATHY CHURCH

The purpose of this lesson is to introduce you to three shots that will add interest to your U/W videos: the cut-in, cut-away and overlap. These will add variety to the basic LS, MS, CU and LS pattern presented last month.

To show how cut-in and cut-away shots are used, let's begin with a fish feeding adventure at the *Balboa* off Grand Cayman. Jim began with a wide angle LS to establish the location and subjects: two divers kneeling on the sandy bottom. Then, he swam in slowly—without turning the camera off—to identify the divers with a MS and introduce the action: Cathy was feeding the yellowtails as Ro (Robert of Sunset Divers) watched. After about ten seconds of shooting, Jim shut the video camera off.

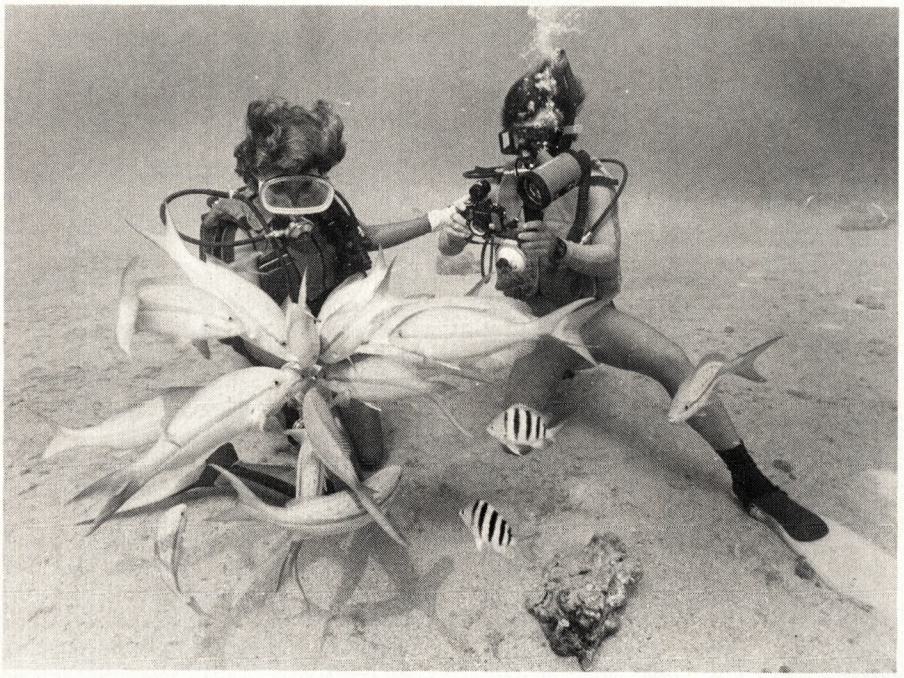
He moved in and shot an ECU cut-in to show the yellowtails going after the nozzle of the pressurized cheese can. After about five seconds, he shut the camera off. Once the viewer sees several fish bite at the nozzle, additional viewing would be boring. It was time to cut-away to a related action. Because Ro, who was watching the feeding, was shown in the introductory LS and following MS, his interest was related to the main action. Thus, for the CU cut-away, Jim shot about three seconds of Ro's face as he watched the fish antics.

It was time to end the fish feeding part of our video movie, so we needed to resolve the action and set up a transition to another U/W activity. To do so, Jim pulled back for a MS (basically the same as the MS used to identify the action earlier) and shot several seconds of Cathy feeding the fish with Ro watching. Then, as preplanned, Cathy and Ro turned and

SELF ASSIGNMENT

If you can, modify this assignment for one or more subject divers, or for pool or open water. The topside shots will depend on the weight of your camera system. If you don't have a pool, modify for a topside shoot of two or more persons. Here is the basic sequence:

1. Topside LS showing divers entering the pool.
2. Underwater LS overlap shot of divers entering the pool.
3. Slow LS pan of divers approaching a large shell (or other object).
4. MS of a diver picking up the shell.
5. CU of diver's head and shoulders as he/she examines the shell.
6. ECU cut-in of just the shell in the diver's hand.
7. CU cut-away of diver's face.
8. MS of diver placing shell on bottom.
9. Underwater LS—slow pan as divers swim to ladder and leave pool.
10. Topside LS overlap of divers breaking surface at ladder and leaving the pool.



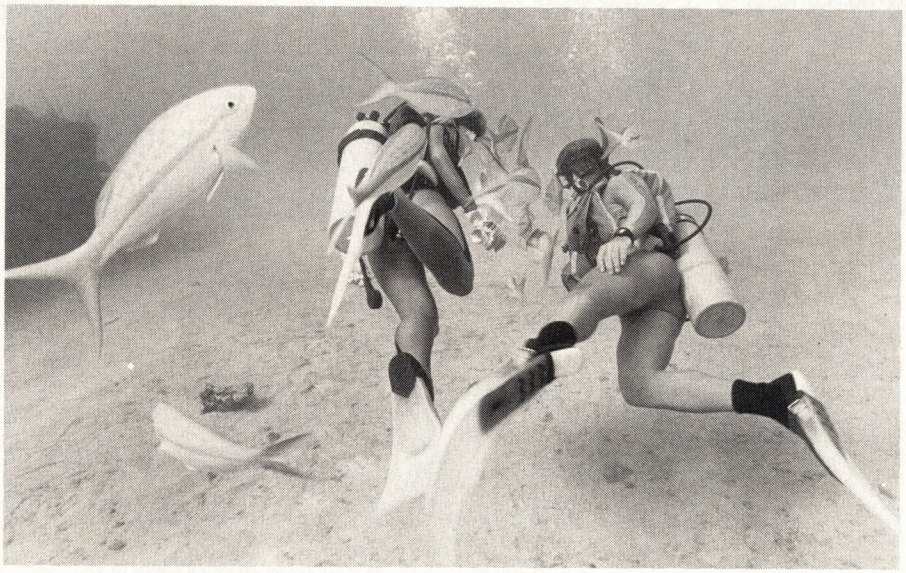
Cut-ins, cut-aways and overlapped shots add interest to your underwater videos. Here a wide angle LS establishes the scene—a diver feeding a horde of fish.



A CU cut-in illustrates the main action.



A CU cut-away shows the diver's interest.



A LS showing the divers swimming away ends the fish feeding sequence.



Overlapped action smooths the transition as the divers enter the sunken hull.



The shot from inside the hull can then follow the divers to new action.

GLOSSARY

Cut-in Shot: A brief CU or ECU that cuts into the main action. For example, if a MS shows a diver reading a depth guage, a brief cut-in CU can show the diver's view of the gauge.

Cut-Away Shot: A brief CU, ECU or sometimes a MS, that cuts away from the main action. It cuts to a related subject or a separate action that is occurring at the same time. For example, if a MS shows a diver looking at a fish, you could use a brief CU cut-away of just the diver's face. A cut-away subject should be established as part of the main action, directly or indirectly, before the cut-away shot is made.

CU: A close-up shot that pinpoints the main action. LS and MS shots usually lead to the CU.

ECU: Extreme close-up.

Establishing Shot: A shot, usually a LS, that introduces the viewer to a scene or action.

LS: A long shot, usually wide angle, showing the overall view of the scene. These are usually used to establish scenes and to resolve sequences.

MS (medium shot): It provides the transition between the LS that established the scene and the CU that pinpoints the action.

Overlap: To reshoot the same action—but from a different angle—that occurred at the end of the previous shot.

Resolving Shot: A shot, usually a LS, that shows or implies the end of an action or sequence of shots. The resolving shot may also provide a transition from one scene to another.

Scene: The overall view of a subject or subjects.

Sequence: A series of related shots in a logical order. A video is made of a series of related sequences.

Shot: The time from when you turn the camera on until you turn it off.

Shoot: The act of taking a shot (verb); a shooting session when several shots are made (noun).

swam away (for a LS) and out of the frame to left of camera.

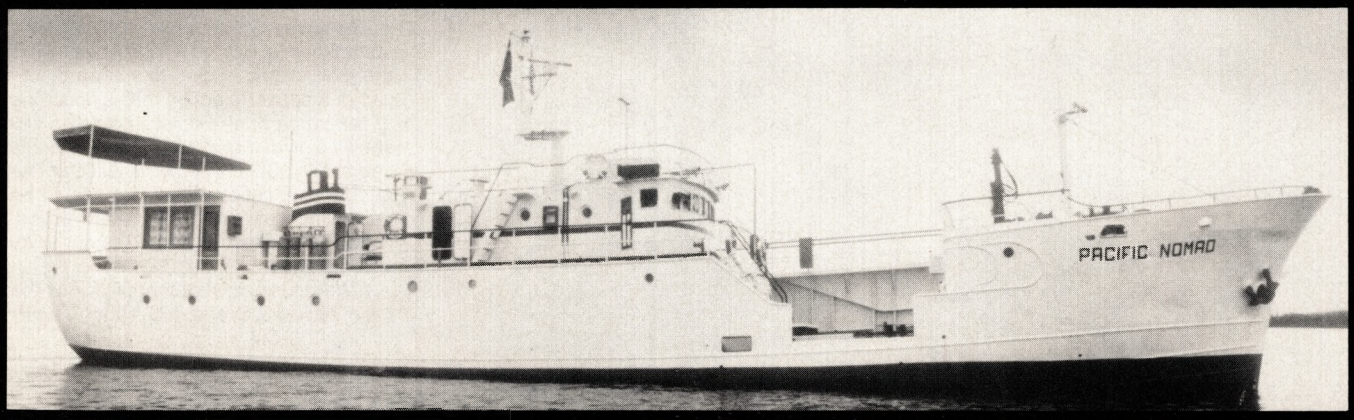
The ending scene—Cathy and Ro swimming away from camera—provides a natural transition to the next action sequence. If they swam out of the frame to the left, we could have them swim back into the frame from the right (for smooth directional continuity) when we established a new location and action. Had they swum out of the frame to the right, we would have them swim back into the frame from the left. If they swam directly away from the camera, they could swim into the frame from any angle to establish a new location.

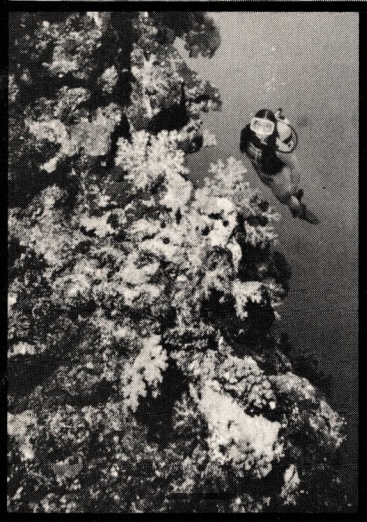
Our next sequence was shot at a cave-like opening in the upside down hull of the *Balboa*. Jim wanted Cathy and Ro to "discover" the opening, pause and then swim inside. In order to smooth the tran-

(Continued on Page 71)

FOR A FEW DOLLARS MORE...

than the cost of a caribbean vacation you can now dive the great sea reefs of Fiji aboard the all-new *Pacific Nomad.*













Pacific Nomad is 115 feet long, with private double accommodations for 13-18 passengers in wonderful stable comfort. She offers fine food, a professional crew and unlimited diving on Fiji's remote and unspoiled great sea reefs. Group charters available. For a few dollars more you can dive the Pacific's fabled reefs.

COMPARE!

With airfare to Fiji at new lows compare a week of the Pacific's greatest reefs with a week in the Caribbean:

	FIJI	CARIBBEAN
All-inclusive, unlimited diving, & cruise.	$1400	$1095
Airfare from San Francisco or Los Angeles to Nadi	$ 692	$ 550
	$2092	$1645

If you've dreamed of the Pacific's greatest diving, it is now within your grasp...

For further information contact:

1966 TWENTY-ONE YEARS OF SERVICE TO DIVERS 1987

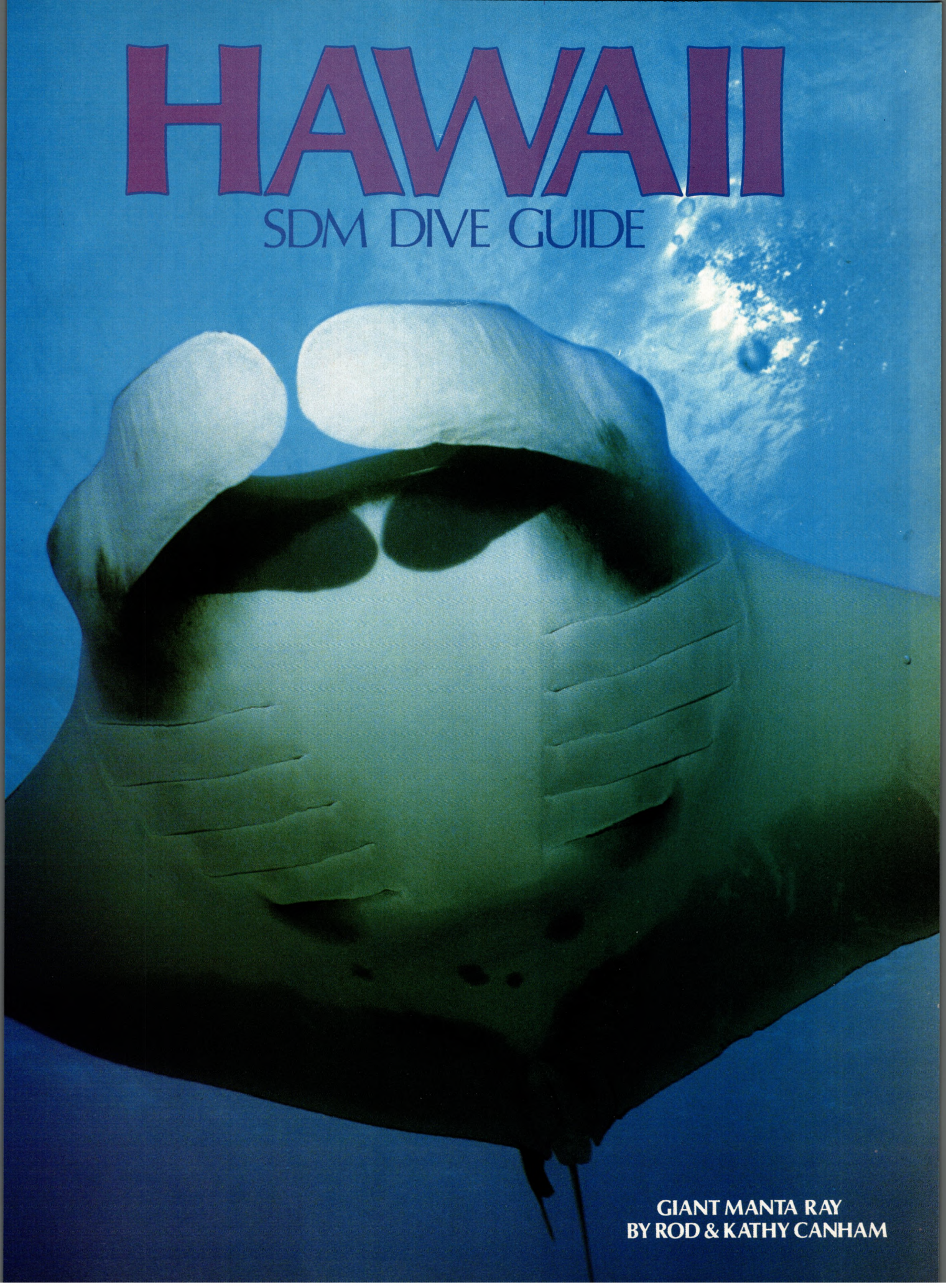
See & Sea
TRAVEL SERVICE, INC.

50 FRANCISCO ST./STE. 205
SAN FRANCISCO, CA 94133
TELEPHONE (415) 434-3400
TELEX 278036 SEAS UR

Call the Dive Experts at 1-800-DIV-XPRT

HAWAII

SDM DIVE GUIDE



GIANT MANTA RAY
BY ROD & KATHY CANHAM

HAWAIIAN ISLANDS

America's Polynesian Paradise

TEXT AND PHOTOGRAPHY BY ROD & KATHY CANHAM



Hawaii offers a variety of charming marine life including octopus, shells and brightly colored shrimp.



The Hawaiian Islands offer a Polynesian blend of year-round balmy weather, family oriented activities, the security of travel within the United States and action packed diving. Located 2,400 miles southwest of San Francisco, Hawaii is an easy five hour flight from the West Coast and nine hours from Chicago. Honolulu International is one of the busiest airports in the United States. Besides being a final destination for more than five million tourists annually, its mid-Pacific location provides an easy stepping-stone to all major South Pacific and Far East destinations.

Honolulu is also the hub of inter-island flights. Aloha Airlines offers exclusive Boeing 737 jet service to each of the outer islands. With more than two million passengers annually, Aloha has the highest customer satisfaction rating of all major airlines in the U.S. Flights are frequent and short. Kauai is just 26 minutes from Honolulu, Maui, 25 and Kona, 33.

In the tropical belt, cooled by constant trade winds and surrounded by an ocean that serves as a giant thermostat, the islands' climate varies only slightly year-round. Summer runs from May to October when temperatures range from 73 to 88°F. In the winter (October through April) they drop to the 65 to 80°F range. Though the temperatures are moderated by the constant breezes, visitors are advised to wear brimmed hats and sunscreen for protection. Casual attire is the word here. Shorts or bathing suits, T-shirts and sandals are the norm. A lightweight jacket or sweater is advisable for the evening, though some restaurants require slacks and an open collar shirt.

Hawaii's dining runs the gamut from a plethora of fast food chains to exquisite continental cuisine. The confluence of European, Oriental, South Pacific and native Hawaiian cultures contributes to the culinary delights. Seafood is caught fresh daily and offered in a variety of tasty dishes. It is a treat that should not be overlooked. And, no Hawaiian vacation would be truly complete without—at least once—experiencing a *real* Hawaiian luau. On the other hand, many hotel rooms and condominiums have refrigerators and some have self-contained kitchen facilities, so visitors do not have to be 100 percent restaurant dependent.

Room accommodations vary as much as the dining options. Bed-only hotel rooms, guesthouses, bed and breakfast inns and fully furnished condominiums are available. Some are equipped with full kitchens, washer/dryers, swimming pools, hot tubs and balconies (lanais) that overlook the ocean.

REAL HAWAII, a Honolulu based tour company, was established in 1983 by John Laures to plan vacation packages for divers. With one toll free phone call, arrangements for round trip air fare, both from the mainland and inter-island; ground transportation through Tropical Rent-A-Car; accommodations at a condominium resort; and dive packages can be made. Diving can be through one of three full service professional operations on each of the outer islands. On Kauai, guests of Real Hawaii stay at the Kana Lani and dive with Aquatics Kauai. On Kona, it is either at the Kona Reef or Kona Makai resorts. Diving is with Kona Coast Divers. Ocean Activities Center provides the dive services on Maui where visitors stay at either the Maui Sunset or Hale Ono Loa resort. Real Hawaii can be telephoned at (800) 367-5108.

The dive offerings in Hawaii have to be experienced to be fully appreciated. The clear, warm waters are rich with ornate, colorful invertebrates, more than 700 species of tropical fish, friendly eels and shy octopus. Besides the territorial inhabitants, a steady revue of curious and exciting pelagics parades through these waters on a daily basis. Humpback whales enhance the winter months with their playfulness and alluring songs. Dolphins escort boats to and from dive sites and often perform an aerial circus.

Underwater visibility can vary from 50 feet to more than 150 with an average of 75 to 100. Most dive charters are run in the mornings to avoid the increased seas that come with the afternoon trade winds. Water temperatures are 79 to 80°F in the summer and 73°F in winter months. Wet-

DIVE HAWAII

KAUAI • OAHU • MAUI • KONA COAST



PHOTO: ED ROBINSON

HAWAII'S FINEST DIVE OPERATORS
For reservations call: 1 (800) 541-4442
ONE CALL DOES IT ALL!

Send $3.00 for our 24 page color dive guide to:
NAME _____
ADDRESS _____
CITY _____ STATE _____ ZIP _____

P.O. BOX 90295S, HONOLULU, HI 96835

Member of DESTINATION HAWAII

HAWAII

suit protection is a matter of personal consideration but most people opt for shortie jackets.

The dive operations are run by serious minded, service oriented professionals. The quotes and dive site descriptions that follow are drawn from surveys, personal interviews and phone conversations with more than 80 individuals involved with the business of diving Hawaii.

KAUAI

Nowhere in the Hawaiian Islands is the allure, romance and embodiment of the Polynesian South Pacific more exemplified than on Kauai. This small, plush, emerald green island is known as "the Garden Isle." The oldest in the Hawaiian chain, it was formed by the extinct volcano Waialeale. Thousands of years of tropical rainfalls have eroded Kauai into the panoramas of Kalalau Valley's steep chasms, the rugged cliffs of the Napali Coast and the Waimea Canyon, known as "the Grand Canyon of the Pacific."

Man has done little to mar the Eden-like beauty of Kauai. The island's 40,000 residents are dispersed into communities of 4,000 people or less. A four story limit to building heights keeps structures no taller than surrounding tree tops. The one main highway is a 90 mile, horseshoe shaped, shoreline drive running from the Napali Coast to the Kalalau Lookout. Kauai's pristine beauty is exemplified as the paradisiac set for many of Hollywood's productions. Every year since the early 1950s, a major motion picture has been filmed here. The list includes such classics as *South Pacific*, *Paradise Lost*, *King Kong* and *Raiders of the Lost Ark*.

Seventy-two miles northwest of Oahu is Lihue's newly completed airport complex. The resorts are in the Poipu/Koloa area on the south shore, Wailua-Kapaa region on the east coast and Hanalei/Princeville on the north shore.

Underwater, Kauai is a blend of ancient lava formations, rare, unique and abundant tropical fish and the everpresent chance of close encounters with exciting pelagics. The south shore area, close to Poipu, has several sites divable year-round. **Sheraton Caverns** are three 10 foot high lava tubes that run parallel to each other. The tubes are 35 to 60 feet deep and wide enough for four divers to swim abreast. There is a resident host of friendly eels and an abundance of lobsters. Occasionally, a turtle or whitetip reef shark can be sighted. The area is always protected from rough seas. There is never any current and, most important to Terry O'Halloran, co-owner of FATHOM FIVE DIVE SHOP in Old Koloa Town: "The fact our sites are rarely dived makes them special for marine life observations." With partner Frank Adams, O'Halloran runs dive charters to the nearby south shore aboard a 24 foot Radon year-round. Having recently refurbished every facet of its business, Fathom Five has a reputation for running an efficient operation. Morning charters return by noon and afternoon trips by 5:00 pm, al-

Dive Hawaii

COMPLETE DIVE VACATION PACKAGES MADE EASY WITH ONE TOLL FREE CALL

DIVING • FLIGHTS • CAR • CONDO

The best dive shops on Maui, Kona and Kauai have combined with Hawaii's premier condominium vacation company to create a hassle-free diving vacation that can't be beat. One toll free call reserves your boat dives, flights, air-conditioned rental car and deluxe condominium in our low-rise, oceanfront properties. You get a minimum of topside hassles and delays and maximum time doing what you came to Hawaii for - great diving.

Relax in your spacious, beautifully furnished one- or two-bedroom condominium. (You won't find any cramped, confining hotel rooms here!) Each has a color TV. Most condominiums have air-conditioning, though you'll find the trade winds in Hawaii refreshingly cooling throughout the day and night without it. Each condominium has a private lanai, perfect for watching Hawaii's magnificent sunsets. Traveling gourmets (and hungry divers) will love our fully-equipped kitchens.

All of our condominium resorts have swimming pools, and may include some of the following amenities as well: BBQ area, tennis courts, jacuzzi, sauna, and more.

And wherever you go - underwater or above - you'll find the friendly Aloha Spirit that brings divers back to Hawaii time and again.

Hawaii's best dive package value!

$799 ONE FULL WEEK (per person/double occupancy)
AIR/CONDO/DIVE/CAR PACKAGE
Kauai, Kona, or Maui

Your Real Hawaii Dive Package includes:

- **Roundtrip Airfare** from Los Angeles, San Francisco or Seattle to the Neighbor Island of your choice via midweek flights.
- **8 Days/7 Nights Deluxe Oceanfront Condominium** with pool, jacuzzi, tennis courts. Your spacious, beautifully furnished 1-Bedroom (2-Bedroom available) Condominium features a fully equipped kitchen, private lanai and color TV.
- **7 Days Air-conditioned Compact Car Rental.**
- **3 Days of 2-Tank Boat Dives** with the finest dive shops on the islands:

• KAUAI • KONA • MAUI •
Aquatics Kauai — Kona Coast Divers — Ocean Activities Center

For reservations, information or free brochure
CALL TOLL FREE 1-800-367-5108
real hawaii

DESTINATION HAWAII

Destination Hawaii is a collection of dive shop and charter businesses in the Hawaiian Islands. Incorporated in 1984 as a non-profit organization, its participating members have joined forces to help promote diving in Hawaii, ensure marine life conservation and improve the quality of diving services.

Led by executive director Barbara Brundage, the membership has produced a videotape to be used at trade shows and dive gatherings. It has also published a 24 page, full color brochure on diving in Hawaii. The booklet is illustrated with beautiful photographs, informative dive site maps and a list of member services. It may be obtained by sending a check for $3 (outside the U.S., please send $4) to: Destination Hawaii, P.O. Box 90295, Honolulu, HI 96835.

KICK UP YOUR HEELS IN HAWAII

Complete Packages Including Airfare, Hotel, Car, Diving & More . . . With Hawaii's Finest Dive Operations

For Reservations Call: 800-541-4442

One call does it all!



Send $3.00 for our 24 page color dive guide to:

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

P.O. BOX 90295S, HONOLULU, HI 96835

Member of DESTINATION HAWAII

KAUAI MEMBERS

AQUATICS KAUAI, LTD.
433 Kuhio Hwy.
Kapaa, HI 96746
(808) 822-9213
(808) 822-9422

FATHOM FIVE DIVERS
P.O. BOX 907
Koloa, HI 96756
(800) 422-DIVE
(808) 742-6991

SEA SAGE DIVING CTR.
4-1378 Kuhio Hwy.
Kapaa, HI 96746
(808) 822-3841

OAHU MEMBERS

AARON'S DIVE SHOP
602 Kailua Road
Kailua, HI 96734
(808) 262-2333

ALOHA DIVE SHOP
Koko Marina
Shopping Center
Honolulu, HI 96825
(808) 395-5922

HAWAIIAN DIVERS
4510 Salt Lake Blvd.
Honolulu, HI 96818
(808) 487-8969

LEEWARD DIVE CTR.
87-066 Farrington Hwy.
Maili, HI 96792
(808) 696-3414

REAL HAWAII
(TOUR COMPANY)
900 Ft. St. Mall, #1605
Honolulu, HI 96813
(800) 367-5108
(808) 537-4996

SOUTH SEAS
AQUATICS
1050 Ala Moana Blvd.
Honolulu, HI 96814
(808) 538-3854

STEVE'S DIVING
ADVENTURES
1860 Ala Moana Blvd.
Honolulu, HI 96815
(808) 947-8900

WINDWARD MARINE RES.
47-039 Lihikai Drive
Kaneohe, HI 96744
(800) 367-8047 x239
in U.S.
(800) 423-8733 x239
in Canada
(808) 239-5711

MAUI MEMBERS

BLUE CHIP CHARTERS, LTD.
P.O. Box 5159
Lahaina, HI 96761
(808) 667-7474 x3267
(808) 661-3226

CENTRAL PACIFIC DIVERS
780 Front Street
Lahaina, HI 96761
(800) 551-6767
(808) 661-8718

DIVE MAUI, INC.
Lahaina Marketplace
Lahainaluna Road
Lahaina, HI 96761
(808) 667-2080
(808) 661-4363

THE DIVE SHOP OF KIHEI
1975 S. Kihei Road
Kihei, HI 96753
(808) 879-5172

HAWAIIAN REEF DIVERS
129 Lahainaluna Road
Lahaina, HI 96761
(808) 667-7647

HAWAIIAN WATER-
COLORS
P.O. Box 616
Kihei, HI 96753
(808) 879-3584

HOTEL LANAI
P.O. Box A-119
Lanai City, HI 96763
(800) 624-8849
(808) 565-7211

LAHAINA DIVERS
710 Front Street
Lahaina, HI 96761
(800) 367-8047 x102
(808) 667-7496

MAUI DIVE SHOP
Azeka Place
P.O. Box 1018
Kihei, HI 96753
(808) 879-3388

OCEAN ACTIVITIES CTR.
Wailea Shopping Center
3750 Wailea Alanui D-2
Wailea, HI 96753
(800) 367-8047 x448
(808) 879-4485

SCUBA SCHOOLS OF MAUI
1000 Limahana Place
Lahaina, HI 96761
(808) 661-8036

KONA COAST
(HAWAII) MEMBERS

GOLD COAST DIVERS
King Kamehameha
Hotel Mall
75-5660 Palani Road
Kailua-Kona, HI 96740
(800) 367-8047 x458
(808) 329-1328

JACK'S DIVING LOCKER
Kona Inn Shopping Village
P.O. Box 5306
Kailua-Kona, HI 96745
(800) 345-4807
(808) 329-7585

KOHALA DIVERS, LTD.
P.O. Box 4935
Kawaihae, HI 96743
(808) 882-7774

KONA COAST DIVERS
75-5614 Palani Road
Kailua-Kona, HI 96740
(800) KOA-DIVE
(808) 329-8802

SCUBA SCHOOLS OF KONA
74-425 Kaelakehe Pkwy.
P.O. Box 4190
Kailua-Kona, HI 96745
(808) 329-2661

SEA PARADISE SCUBA
78-7128 Kaleopapa Road
P.O. Box 5655
Kailua-Kona, HI 96745

CONTINENTAL
UP WHERE YOU BELONG

HAWAII

lowing divers time to enjoy the pleasures of above water Kauai.

General Store is a horseshoe shaped ledge lying in 65 to 80 feet. There is an abundance of lemon butterflyfish, black coral and remnants of a 19th century steamer. **Brenneke's Ledge** is a series of three dive sites with high potential for pelagic sightings. At the southeast corner of the island, it is a long ledge, running from 60 to 95 feet. Turtles are often seen sleeping here. Other south shore favorites include **Turtle Bluffs** and **Fishbowl**.

Not all the areas of Kauai are divable year-round. Dive site accessibility is dictated by seasonal changes and daily variations. From June through September, Pete Ricciardi of AQUATICS KAUAI likes to take charters to **Mana Crack** off the Napali Coast. He says, "It is the only true barrier reef off Kauai." Covering an area of about seven miles, rock formations, ledges, lava tubes and a circus of sea life live in waters that offer 85 foot visibility. Established in 1976, Aquatics Kauai's two boats, the 26 foot *Nani Kai* and the 38 foot *Ginne Mae*, run every day.

When everything clicks, the north shore is a visual spectacle. Accessible from May to September, **Oceanarium** is a pinnacle with deep cracks, large black coral trees and rare fish. Depth varies from 65 to 140 feet, making it an area for experienced divers only. **Truck Stop** is an archway large enough for a semi to drive through. The top of the arch starts at 55 feet, is 50 feet wide and 100 feet deep. The archway is densely packed with cup corals, black coral, lionfish, a sponge crab and banded angelfish.

Nick Konstantinou is the owner of SEA SAGE in Kapaa. He works closely with manager Howard Albers and boat owners Ken and Linda Bail. Nick states, "We're a tight corps of instructors—conservation minded, with our hearts into the marine life." Linda and Ken operate their 21 foot Radon exclusively through Sea Sage and are constantly seeking the best areas possible.

On the east coast, popular sites include **Ahukini Landing**, **Aquarium** and **Dragon's Head**. As good as the dive offerings are, Kauai is a balanced vacation destination. Albers best sums it up, "If you want to get away from it all, it's here. And, if you're an active vacationer, you won't be bored."

There's one last "must" to do on Kauai: South Seas Helicopters is one of several companies that runs aerial tours in and around Kauai. Passengers don stereo headphones for a musically accompanied, 50 minute, "E ticket" symphony that will take one's breath away. Don't miss it!

DELUXE DIVE PACKAGE

7 days/7 nights

$687.00

Per person/ double occupancy.

Includes accommodations at Coco Palms Resort, Car Rental, 3-Two tank boat dives, Helicopter Aerial Tour and choice of Windsurfing lessons/rentals or Boat Tour.

KAUAI

Hawaii's Garden Island

PARADISE FOR THE WHOLE FAMILY

Condominium packages for families and larger groups also available.

SEA SAGE DIVING CENTER

For Deluxe Dive Package reservations or information Call: Sea Safaris at (800) 821-6670 in CA (800) 262-6670

For island diving information call or write:

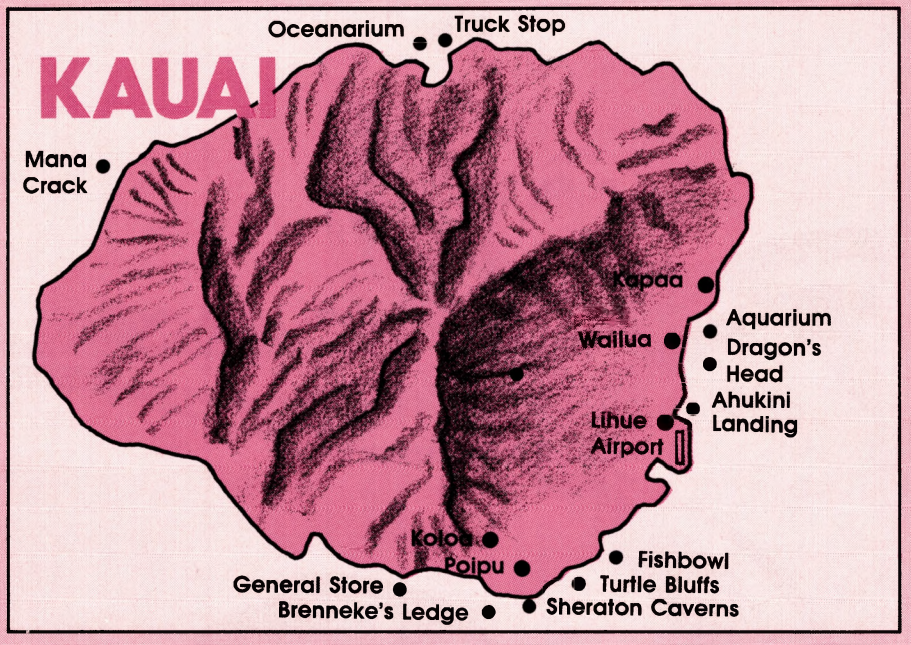
SEA SAGE DIVING CENTER

Name _____

Address _____

City _____ State _____ Zip _____

4-1378 Kuhio Hwy, Kapaa, Kauai, HI 96746 (808) 822-3841



OAHU

Oahu is known as "the gathering place." The third largest of the island chain, it is the political, economic and cultural center of Hawaii. Eighty percent of the state's one million people live on Oahu, one-half of them centered in and around the capital city of Honolulu.

The island is studded with white sand beaches and visitors can sun worship, wind, body or boardsurf, snorkel, swim or just spectate. The most famous (and most crowded) beach is Waikiki. The adjacent strip along Kalakaua Avenue is host to 33,000 hotel rooms and a myriad of shops, nightclubs and some of the finest dining available.

A drive around Oahu brings travelers

by fields of sugar cane and pineapple plantations. Hanauma Bay, Pali Lookout and Diamond Head Crater are rated as three of the state's ten best panoramic vistas. Poignant reminders of World War II can be seen at the National Memorial Cemetery of the Pacific at Punchbowl Crater and the USS *Arizona* Memorial at Pearl Harbor.

Divers and nondivers, young and old, will enjoy learning about Hawaii's plentiful marine life community at either the Waikiki Aquarium or Sea Life Park.

Dive offerings around Oahu are as diverse as the island itself. **Turtle Canyon** in Maunalua Bay has a sand and lava ridge bottom. Its shallow waters are home to several dozen green sea turtles, and divers can observe and swim alongside them. It is a fun, easygoing dive and one of the personal favorites of Jackie James, owner of ALOHA DIVE SHOP at the Koko Marina Shopping Center. She approaches diving with a contagious enthusiasm that belies her 16 years in the business. The staff caters to new divers and immediately learns the first name of all customers. "I want to make people feel like they are coming into my home," Jackie says. Her two boats, the 30 foot *Easy Diver* and 29 foot *Easy Two* are berthed outside the back door of the shop. From there it is a short ride to the dive sites. "We want to sell fun, and above all, safety," she says. All dives are 50 feet or less. Besides Turtle Canyon, Jackie enjoys **Anglerfish Reef**, the home of anglerfish, eels and tropicals.

Another business that operates in the Maunalua and Hanauma Bay areas is VEHON VENTURES, owned by Don and Eileen Vehon. Charters aboard one of their two 25 foot custom dive boats originate from their store at the Kaupa Kai Shopping Center. Manager Mike Hasagawa likes **Palea Point** at the north tip of Hanauma Bay. It is a wall dive that starts at 15 feet and drops to 100. The pinnacle is loaded with tropical fish, crabs and several species of lobsters. A colorful site with caves and archways, it is great for night dives as well. **Six Fingers** in Maunalua Bay is a series of ridges running perpendicular to the shore in 30 to 55 feet of water. It is a good spot for beginning and seasoned divers alike.

OCEAN ADVENTURES INC. is a PADI Five Star facility based in Pearl City. Operated by Brad and Debi Revis, the store has recently purchased a 28 foot custom Delta dive boat for use in conjunction with a dive/accommodations package with the Sheraton Makaha. Diving the leeward side of Oahu, Revis enjoys the wreck of the ***Mahi*** and the **Makaha Caves**. "On the leeward side visibility runs from 60-100 feet, 350 days a year."

For an experience out of the ordinary in dive charter service, ELITE DIVES HAWAII offers a luxurious, slow paced day catering to those willing to pay for it. En-route from an 8:00 am hotel pickup, cus-

Over 10,000 Hours Underwater with Island Visitors!

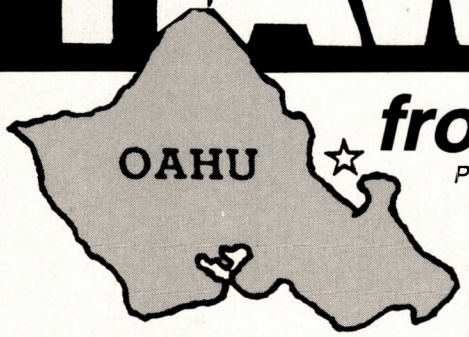
DIVE PACKAGES in Poipu
on Kauai's Sunny South Shore

- Poipu's ONLY Full Service Dive Center
- Minutes to best year-round dive sites
- Island's finest weather & beaches
- Small Groups—never more than 6 per boat

800-422-DIVE
(Direct to Fathom Five)
Post Office Box 907 SD • Old Koloa Town • Hawaii 96756

FATHOM FIVE DIVERS Kauai

HAWAII



from: **$399**
Per Person Double Occupancy

INCLUDES:
6 NIGHTS DELUXE OCEANFRONT HOTEL
7 DAYS A/C CAR WITH UNLIMITED MILEAGE
CONTINENTAL BREAKFAST DAILY
3 TWO TANK DIVES

EXPERIENCE OAHU'S WINDWARD COAST
AWAY FROM IT ALL!
CLOSE TO EVERYTHING!

Dive some of Hawaii's Best sites with AARON's Dive Shop! Relax at Oahu's first complete watersports hotel dedicated to putting you in touch with the ocean. After a full day of diving enjoy the breathtaking view while relaxing in the Spa or go Sailing, Fishing, or Windsurfing with the North Bay Boat Club! Dive into Clear blue waters, experience world class surfing, sunny beaches, Waikiki's fine dining, night life and more! Explore the many ways to Enjoy paradise on OAHU . . .

Schrader's Windward Marine Resort
47-039 LIHIKAI DR.
KANEOHE, HI 96744
(808) 239-5711



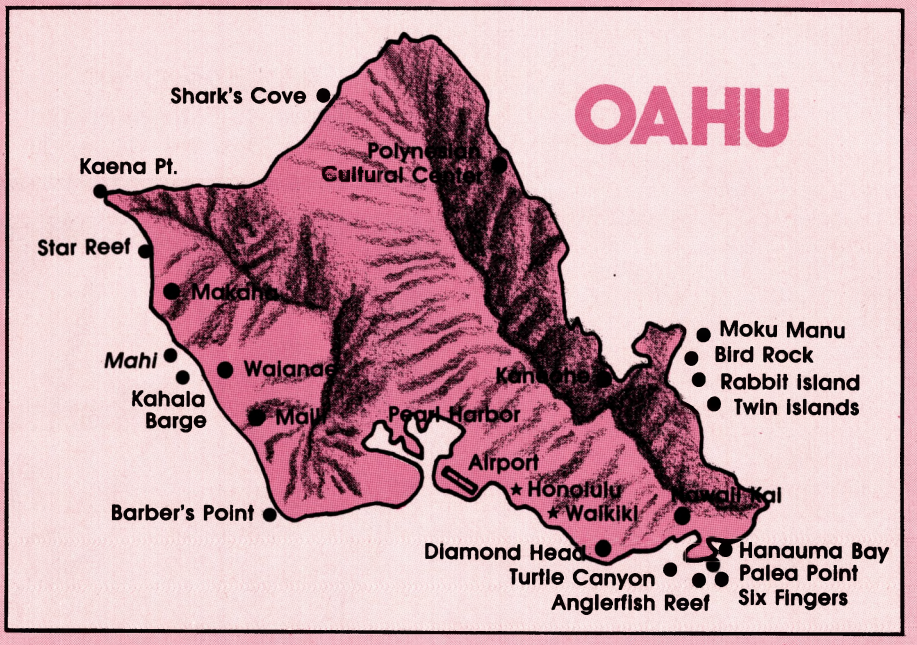
602 KAILUA RD.
KAILUA, HI 96734
(808) 262-2333

FOR RESERVATIONS OR BROCHURE CALL
USA 1-800-367-8047 EXT. 239
CANADA 1-800-423-8733 EXT. 239

HAWAII

tomers dine on fresh baked pastries, coffee or tea in an air-conditioned deluxe passenger van. As many as six customers board the newly built, 30 foot deluxe dive boat *Elite Diver* for "a truly superlative underwater experience," says co-owner/operator Bob Siegel. "We provide all top of the line equipment, assembled and waiting for passengers when they arrive." A between dive lunch of quiche, cold pasta, salads, fruit and pastries is served. Bob and his partner, Scott Turner, restrict their diving to **Hanauma Bay**. A state underwater park and marine preserve, it is one of the most vibrant and healthy reef systems off Oahu. The bay has lush corals, a plentiful assortment of tropicals, turtles, rays and dramatic lava formations and exceptional visibility. Frequented by many operations, Hanauma Bay is an ancient volcanic crater with one side eroded. Depths range from a few feet to more than 70 at the bay's opening. It is a popular spot for both snorkelers and scuba divers alike.

One of the favorite dive sites with all the Oahu operators is **Shark's Cove**. One mile north of Waimea Bay, this 15 to 45 foot deep shore dive is honeycombed with lava tubes and caverns where open ceilings allow light to penetrate in a spectacular visual array.



SCUBA • UNDERWATER ADVENTURES

Vehon Diving Ventures

Honolulu, Hawaii 396-9738

offering...fun under the sun!

CERTIFIED OR BEGINNER SCUBA DIVERS

NASDS PADI

BOAT RIDES • SNORKELING
UNDERWATER CAMERAS • FISHING CHARTERS
NIGHT & OUTER ISLAND DIVES
OPEN WATER CHECK OUT &
4-DAY CERTIFICATION COURSE
All Equipment included

FREE TRANSPORTATION • VISA & MASTERCARD

DIVE WITH SOUTH SEAS AQUATICS HAWAII

Complete pro facility with state of the art 38' Delta dive boat. Being the oldest dive shop in Hawaii doesn't make us the best, but being the best helps make us the oldest. South Seas Aquatics offers night dives along with a selection of P.A.D.I. specialty courses. Daily boat dives available. Now under new management. Write for information.

SOUTH SEAS AQUATICS
1050 Ala Moana Bl., Honolulu, HI 96814 (808) 538-3854

Name _____

Address _____

City _____ State _____ Zip _____

Established in 1971, AARON'S DIVE SHOP of Kailua has been running dive charters to Oahu's windward side for several years. "All our sites are a 20 to 45 minute boat ride, offer visibility averaging 100 feet, excellent photographic opportunities, pristine corals, lava tubes and caverns," says Manager Brian Grabel. He also says **Moku Manu**, an island two miles seaward of Mokapu Point, is one of the best areas for sighting big fish, rays and sharks. Other sites frequented by Aaron's are **Rabbit Island**, **Twin Islands** and **Bird Rock**. Recently, owner Jack Aaron formed an association with SCHRADER'S WINDWARD MARINE RESORT, a 50 unit complex at Kaneohe. Managed by Jeff Bond, the resort is dedicated to the watersports enthusiast. Guests can partake in kayaking, windsurfing, snorkeling and fishing—all in nearby Kaneohe Bay.

For wreck diving enthusiasts, Oahu has three sites accessible by boat, easy to dive and fun to experience. Lying upright in 50 to 80 feet of water, the 200 foot **Kahala Barge** was sunk as an artificial reef. The pilothouse is intact, penetrable and often home to a large green sea turtle. Tropicals have started to move into the area and spotted eagle rays are often seen swimming by.

One mile off the coast of Wainae is the

fully intact wreck of the *Mahi*. The 165 foot minesweeper lies upright in 70 to 90 feet. Sunk as an artificial reef in 1982 by Ken Taylor of SOUTH SEAS AQUATICS, the wreck has become home for blue-striped snapper, goatfish and yellow margin eels. Ken is also responsible for the underwater placement of a single engine aircraft. The cockpit is open and divers can sit in the pilot's seat.

The diverse dive offerings, panoramic vistas, untouched beaches and excitement of Waikiki make Oahu an ideal family vacation destination.

MAUI COUNTY

"*Maui no ka oi*" means Maui is the best. It is an old Hawaiian saying that is hard to dispute. The island is a tropical playland with picturesque mountains, historic villages and seaside resorts.

Maui County consists of four islands: Maui, Lanai, Molokai and Kahoolawe. Inter-island dive charters run daily and are the keys to diving Maui's waters. The boat trips are an adventure in themselves. "Half the fun of the charter is the boat ride out there," says Steve Knight, manager of HAWAIIAN REEF DIVERS. "The scenery of the West Maui mountains is gorgeous, the chance of seeing whales and having dolphin escorts is as exciting as the diving." Hawaiian Reef Divers, owned by Jim Bellamy, runs charters from Lahaina aboard its 38 foot custom built *Hydronaut* every day. Taking up to 18 passengers, "we try our best to help people have a good vacation in Hawaii and safe diving at a price they can afford," Knight says.

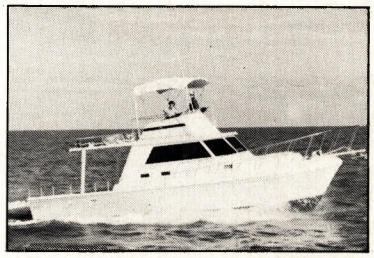
"The Friendly Isle" of Molokai is eight miles northeast of Maui. There are no diving operations on the island, but off its easternmost tip lies an island called **Moku Hooniki**. A deep (up to 95 feet) clear water dive, this rarely visited site can be a wall, drift, pinnacle or reef dive. The marine life is big and beautiful and pelagics are common. Its exposure to the open sea and predominant northeasterly trade winds make this a rarely accessible spot. Another vulnerable but beautifully pristine area is **Hidden Pinnacles** on the windward side of Maui. Marvin Wolpa, manager of LAHAINA DIVERS says, "the site is so rarely accessible, owing to the normal trade wind patterns, I always feel privileged when we get to dive there. The geological structures and the wealth of diverse marine life make for high voltage diving at its best." Lahaina Divers, owned by Blain Roberts, runs daily two tank charters to Lanai and Molokini Crater. "Our staff uses humor and a personal touch to put our customers at ease." Their 43 foot Delta, *Reliant*, comfortably carries 16 divers while *Nomad*, a 31 foot Radon, takes up to 10.

NAGAMINE CAMERA in Lahaina is a full service U/W photography center. One hour print service, overnight E-6 processing, camera rentals and repairs

UNLIMITED DIVING

Experience a luxury dive vacation on the leeward side of Oahu with the Sheraton Makaha and Ocean Adventures.

THE DIVING . . .
Our PADI 5-Star facility assures you of quality diving with first class rentals and spectacular dive sites. Dive the wreck of the Mahi, the Makaha Caves and Black Rock . . . in visibility that averages 60-100' or more, 350 days per year. Our package features truly unlimited diving on the unspoiled, leeward side of Oahu. Daily fishing charters also available.



Ocean Adventure's new Delta 28

THE ACCOMMODATIONS . . .
After your dives, spoil yourself at the luxurious Sheraton Makaha. Set against a backdrop of the Blue Pacific, the Makaha is a world-class resort, featuring an 18-hole golf course, horseback riding, swimming pool and all the amenities that are synonymous with the name . . . Sheraton.

Sheraton Makaha Resort and Country Club



The Sheraton Makaha

THE VALUE . . .
Four nights accommodations in the Sheraton Makaha and three days of unlimited diving (incl. tanks and weights) with Ocean Adventures, Inc.
from **$300.00** p.p.d.o. plus tax

Seven nights accommodations in the Sheraton Makaha and six days of unlimited diving (incl. tanks and weights) with Ocean Adventures, Inc.
from **$570.00** p.p.d.o. plus tax

OCEAN ADVENTURES/SHERATON MAKAHA . . . AN UNBEATABLE COMBINATION FOR AN UNFORGETTABLE HAWAIIAN VACATION.

OCEAN ADVENTURES, INC.
98-406 KAM HWY., PEARL CITY, HI 96782
(808) 487-9060 or call toll free
1-800-367-8047 ext. 113

The Only Crowd You'll Ever See.



Less noise.
Fewer people.
Delicious on-board meals.
A customized dive boat
built for your comfort.
Pampered until you dive!

ELITE DIVES
HAWAII
377 Keahole Street, No. 6 • Suite 158
Honolulu, Hawaii 96825 • (808) 396-8386

AOHA DIVE SHOP

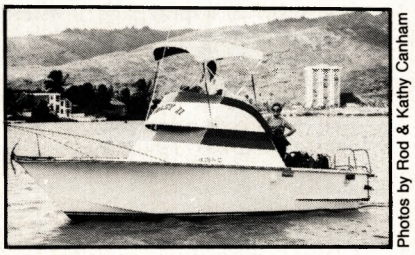
Koko Marina • Hawaii Kai
Honolulu, Hawaii 96825



JACKIE

Easy Diver **Easy Two**





Photos by Rod & Kathy Canham

'DIVING IS FUN' with JACKIE AND HER FRIENDS

- SCUBA INSTRUCTION DAY & EVENING CLASSES
- PRIVATE INSTRUCTION

PADI 5-Star

- COMPLETE RENTAL SERVICE
- RETAIL SALES/SERVICE & AIR
- BOAT CHARTERS

GATEWAY TO HANAUMA BAY

(808) 395-5922 (808) 395-8882

SCUBA SCHOOLS OF KONA

DIVE—CONDO—DRIVE $449
P/P Dbl. Occ.

- 7 NIGHTS, OCEANFRONT CONDO
- 7 DAYS, CAR RENTAL
- 3 DAYS, 2 TANK BOAT DIVES
  ALL EQUIPMENT PROVIDED
- DAILY DIVES TO BEST LOCATIONS ON MAUI, LANAI, MOLOKAI & KONA
- COMPLETE EQUIPMENT SERVICE, SALES, RENTALS, AIR
- SPORTFISHING & PRIVATE CHARTERS

RESERVATIONS
1 (800) 445-2163

KONA
74-425 Kealakehe
Kailua-Kona, HI 96740
(808) 329-2661

MAUI
1000 Limahana Pl.
Lahaina-Maui, HI 96761
(808) 661-8036

SCUBA SCHOOLS



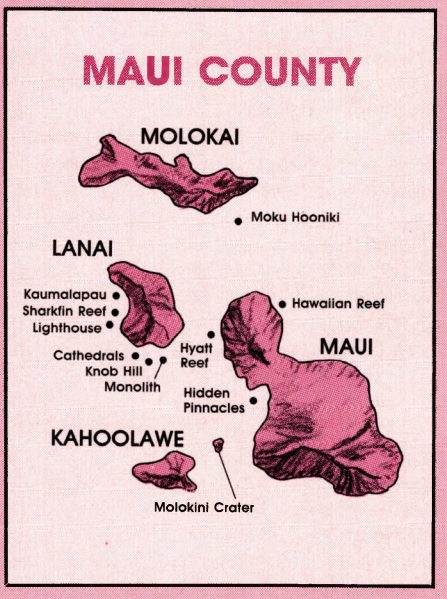
OF MAUI

HAWAII

are available. A wholly-owned subsidiary of Kodak, Nagamine now offers Sony U/W video systems for rental.

SCUBA SCHOOLS OF MAUI operates three charter dives daily. Owned by Rod Quam, Scuba Schools takes as many as six passengers aboard either one of two 25 foot custom Skipjacks. Their 5-45 minute running time between sites makes for a comfortable trip. Recently, Rod opened Scuba Schools of Kona, which is covered in the Kona section.

Ed and Sue Robinson own and operate HAWAIIAN WATERCOLORS in Kihei. Ed is a gifted and renowned underwater photographer. The high rate of return customers for their personalized charter service speaks for itself. Groups of no more than six dive from one of two 21 foot Boston Whalers. "We try to take people to places that are not regularly dived by other operations," Ed says, and the 85 foot deep **Hawaiian Reef** "has diverse flora and fauna and a good cross section of all the marine life found in Hawaii."



Molokini Crater is the favorite dive destination of John Phipps, co-owner of THE DIVE SHOP OF KIHEI. John, his wife Marilyn and partner Linda Kowalsky run daily charters aboard their 25 foot Boston Whaler. Molokini is the mostly submerged tip of a small volcanic "tuff cone." It offers shallow and deep dives, abundant reef life and excellent visibility. A popular site with charter snorkeling boats, anchoring can sometimes get to be crowded. Its popularity is well deserved. Underwater visibility can range in excess of 150 feet. In the channel between Kahoolawe and Maui, the pelagic activity is top drawer. Bottlenose porpoise, manta rays, spotted eagle rays

and whale sharks frequent the crater. The backside of Molokini is a bottomless (more than 300 feet deep) wall dive, where divers can effortlessly glide with the current.

Kahoolawe is an uninhabited island the navy uses for target practice. A couple of weekends a month the navy opens the waters around the island to the public and when the weather allows, it is a special treat. The coral structures are plentiful, untouched and attract lots of colorful reef fish as well as pelagics. **Kuia Shoal** on the southwest end of the island is one of the sites dived by charter groups aboard *No Ka Oi IV*, the 37 foot Tolly Craft owned by OCEAN ACTIVITIES CENTER of Wailea. OAC is a multifaceted organization offering scuba, snorkeling and other related watersports activities. OAC also owns the Hotel Lanai on the island of Lanai. Both the hotel and dive operation are managed by Byrd Gleason, a seasoned veteran of Hawaiian waters. Lanai is remote, but the proximity of the dive sites makes for short running time. Operating from Manele Harbor, Gleason has more than 30 sites to choose from, all within 10 to 20 minutes by boat. Lanai is renowned for its fabled caverns, lava tubes and other topographical formations. **Kaumalapau**, on the west end of the island, is a combination wall dive (to 95 feet), a graduated area resembling three giant steps, and one huge archway. The wall is honeycombed with caves and loaded with lobsters. Other sites on the west side of Lanai include **Sharkfin Reef** and **Lighthouse**. The **Cathedrals** are two separate (and most often requested) sites on Lanai's south side. Both are huge caverns within lava pinnacles. The Cathedrals have a wide variety of lobster, shrimp and other invertebrates.

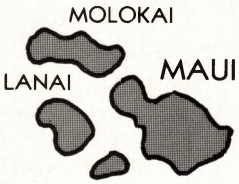
DIVE MAUI, owned by Leslie Sternberg, runs six passenger charters aboard her two, 24 foot boats, the *Argonaut* and *Explorer*. Her hand picked staff "aims to make customers experience with us the best time of their vacation. If their schedule doesn't fit into ours, we fit into theirs." Leslie's favorite site is **Turtle Haven**, where there are "large coral heads with lots of reef fish and hawksbill turtles."

BLUE CHIP CHARTERS operates from the Hyatt Regency Hotel in the resort complex at Kaanapali north of Lahaina. It's owned by Valorie Spence. Her new 40 foot custom Delta is expected to be operational by publication date. Her favorite site is **Hyatt Reef**. It is an extensive coral reef dive where tame fish eat from your hands. There is a tremendous variety of marine life from this shore or boat dive.

CENTRAL PACIFIC DIVERS of Lahaina has long been known for its high standards of customer satisfaction. The staff of CPD gives "personal attention to the customers and takes time to point out the highlights and animals on all the dives," says Jon Good. Owned by Jane and Pete

DIVE FABULOUS MAUI

A paradise in *and* out of the water



MAUI—offers crystal clear waters, the famous cathedrals, the wall of Molokini, and countless dive sites amid lava, coral, and a teaming variety of marine life PLUS the best any resort can offer out of the water with beautiful beaches, great restaurants, quaint bars, unusual shops, world class windsurfing, golf and much more.

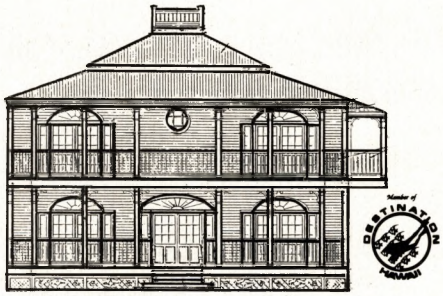
CENTRAL PACIFIC DIVERS

Maui's most popular dive operator since 1971 offers uncrowded, no compromise diving aboard our 43' and our new 50' dive boats with the most experienced staff available



WE CATER TO THE SERIOUS DIVER (Full Service)

PACKAGES FROM $445/WK



The Plantation Inn

Maui becomes affordable beginning the summer of 1987 with the opening of our own "THE PLANTATION INN," a luxurious turn-of-the-century Inn catering to divers and conveniently located in the historic whaling town of Lahaina. Package includes 7 nights, breakfasts, and 3 days diving (7 dives). Ask about our low rates for meals, car, and extra diving

CENTRAL PACIFIC DIVERS

PLEASE SEND INFORMATION ON: ☐ Open Water Training
☐ Interisland Diving Trips ☐ Group Rates ☐ Dive Packages

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

CENTRAL PACIFIC DIVERS • TOLL FREE 1-800-551-6767
780 Front St. • Lahaina, Maui, HI 96761 • (808) 661-8718

THE DIVE SHOP



Full service dive shop offering-

- Sales
- Air station
- Repairs
- Rentals
- Charters

"We specialize in unique and beautiful dives to Molokini Crater."



SIX PAX MAX

NO CATTLE BOATS

P.O. Box 917, 1975 SO. KIHEI RD.
KIHEI, MAUI, HI 96753, (808) 879-5172

FIJI/MAUI

10 DAYS 12 DIVES

FROM $1695.00

Incl. air fares, hotels, diving & equipment. 1st rate diving & accommodations. Personalized tours, non-diver facilities.

Call or write:

WATERSPORTS

NAUI
PADI
SSI

P.O. Box 1656
Lahaina, HI 96767
(808) 661-4363

HAWAII

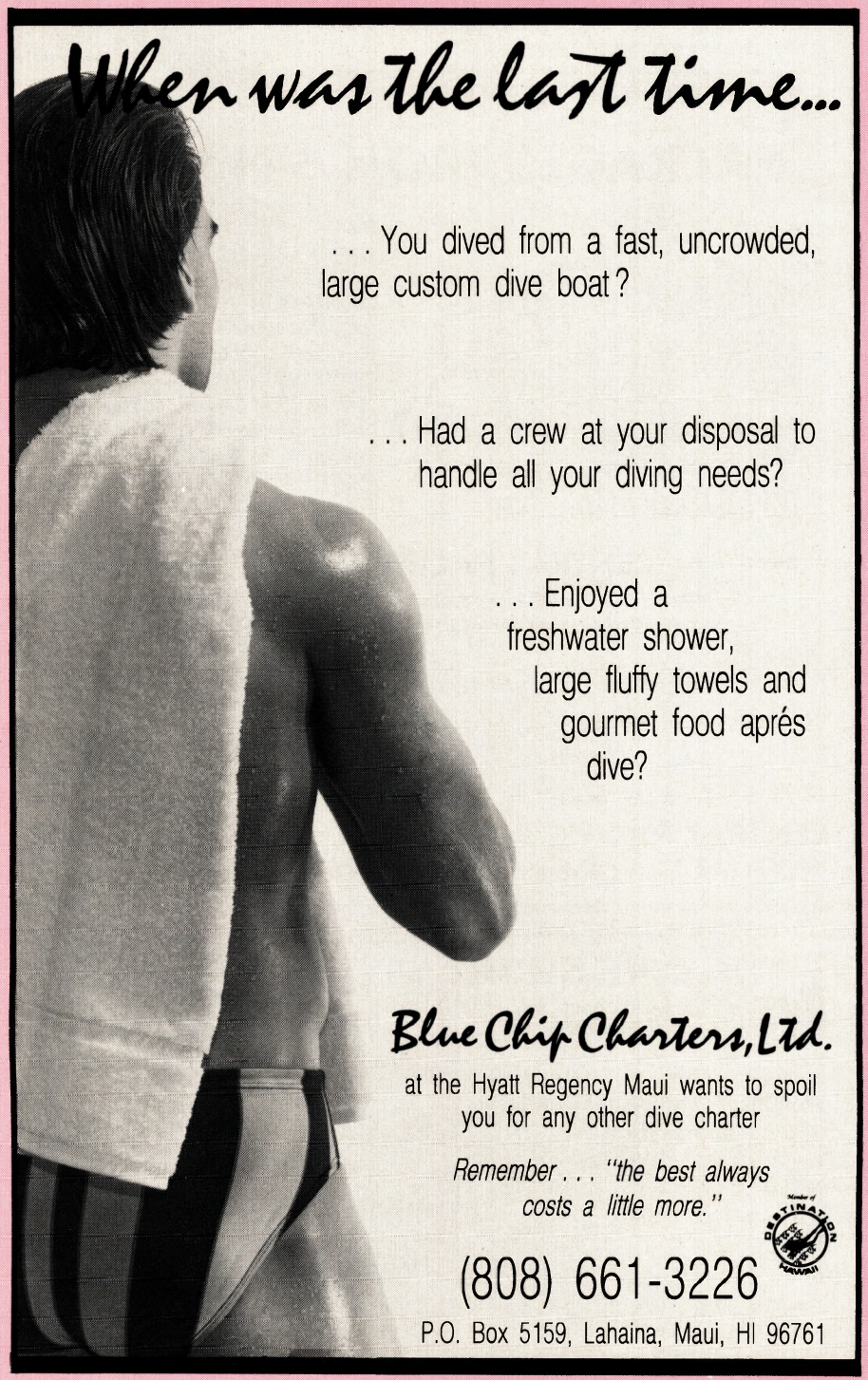
Cambouris and Jim and Lena Patterson, CPD has recently acquired a Delta 50 dive boat. It has a spacious cabin interior, two heads, a hot water shower and microwave. Passenger capacity will be limited to 20. The 43 foot *Zephyrus* is still an integral part of the charter operation. Construction on CPD's bed and breakfast inn has begun and it is expected to open July 1.

To quote Jon Good once more, "The best thing about Maui is accessibility. There's a wide variety of several islands nearby. One can dive many days and never repeat a spot. Given the variable weather here, there is always good diving available." *Maui—no ka oi*!

KONA

The buzzword to diving on the largest and southernmost island in the Hawaiian chain is "Kona." On the west shore of the big island of Hawaii, surface conditions here remain relatively calm, protected from the wind by the island's mountains. A lack of agricultural runoff ensures good U/W visibility (75-150 feet). Kona offers more than 40 spectacular dive sites, all within a 30 minute boat ride from the town of Kailua-Kona. Many sites are accessible from shore as well. Combined with beautiful corals, colorful marine life and frequent pelagic sightings, Kona has the reputation of offering some of the best diving in the islands.

Red Hill is a mile long area, 25 to 70 feet deep, with seven different dive sites. Accessible from shore, as well as by boat, it is listed by many operators as one of their favorites. Steve Mahaney of SEA PARADISE SCUBA says, "Red Hill is a collection of lava tubes, caverns, arches and other underwater volcanic forma-



HUMPBACK WHALES

One of the most exciting times of the year in Hawaii begins each November. A segment of the North Pacific humpback whale population migrates to the waters of Hawaii to calve, cavort and possibly mate. The mystique of their songs, pagentry of display and enchanting magnetism excites even devoted landlubbers.

Starting in late November, reports of sightings circulate throughout the islands. Cameras, telephoto lenses and binoculars are ritually brought on all boating outings. With high expectations, all eyes become alert for the telltale spout. Seldom are viewers disappointed.

Dive charters start having a two-fold purpose. Transit times turn into whale watching cruises. The sometimes curious whales may swim up to boats, display tail or pectoral slaps, spy hop or perform a heart stopping breach. Imagine a 40 foot long animal weighing 40 tons coming straight out of the water, turning and falling back with a cascade momentarily rivaling any display in the animal kingdom—all within 20 yards of the boat!!

According to Greg Kaufman, research scientist and president of the Pacific Whale Foundation, the whales' numbers vary between 600 and 1,200 annually. Though sighted for a six month period (peaking in February and March) individual whales only stay about 75 days. The greatest concentration of whales centers off the west coast of Molokai, then, in declining order, the whale populace centers around the inter-island basin of Maui, then Kona, Kauai and Oahu.

The interpretation of their casual behavior is at best speculative and under research by a few organizations with federal permits. Humpbacks have been officially designated Hawaii's Marine Mammal. Through the Marine Mammal Protection Act and the Endangered Species Act it is against federal law for any boat, plane or swimmer to come within 100 yards of the animals. When sighted, boat captains bring their vessels to a halt and often as not the whales come over for a closer look. Nevertheless, divers frequently hear their melodious songs and sometimes feel the vibrations from an amplified bellow. It is an exciting encounter one rarely forgets.

6 Great Reasons To Dive Maui:

1. **SECOND CATHEDRAL:** Giant cavern off Lanai, where light streams in from various openings, giving the illusion of being in a stained glass cathedral.

2. **REEFS END:** Drop off at Molokini Crater that starts in 5 feet of water and extends to 300 feet. Usually the clearest water in the state, with large concentrations of beautiful tropical fish.

3. **SHARK FIN ROCK:** Protected cove on the backside of Lanai, with large schools of lemon butterfly fish, frequent pelagic fish and schools of (Heniokius) Poor Mans Moorish Idols.

4. **NO NAME BAY:** Quite cove in shallow water for long bottom times with great lava formations.

5. **FISH ROCK:** Exposed wash rock that super oxygenates the water to form a natural fish nursery. More juvenile tropical fish per square foot than any other spot on Lanai.

6. **KNOB HILL:** Medium depth dive with extremely large area of convoluted lava reefs, providing habitat for a variety of marine life. Good for octopus, pufferfish and tubestrea cup corals.

The Best Reason To Dive Maui:

Lahaina Divers, Inc.

Maui's finest dive boats, quality diving, friendly and professional staff. We are committed to giving you the most for your diving dollars.

DIVE PACKAGES: 1 or 2 week packages incl. Maui Islander accom., rental car and all diving STARTING AT $425 (per person, dbl.)

Blain Roberts

BLAIN ROBERTS–PRESIDENT

Call or write for more information

Lahaina Divers, Inc.

710 Front Street, Lahaina, HI 96761

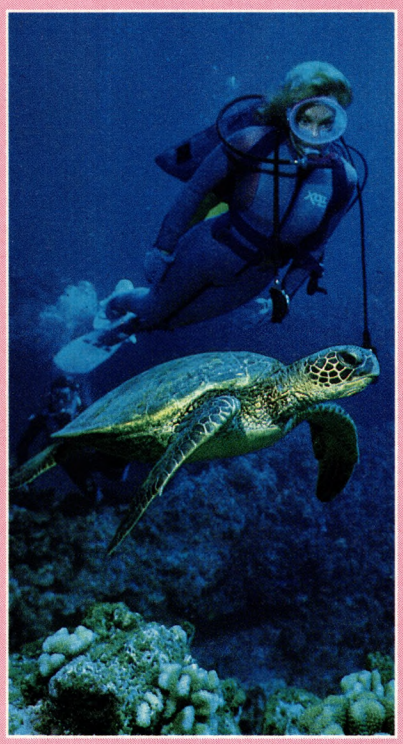
800-367-8047 ext. 102 or 808-667-7497

Name:_____

Address:_____

City: _____ State:_____

Zip:_____









Water temperatures off the Hawaiian Islands range from 73-80°F. Underwater visibility averages 75-100 feet and occasionally reaches 150. Dive sites offer encounters with friendly moray eels, colorful tropical fish and turtles. Wrecks round out the seafloor relief of coral encrusted lava formations. Experienced, efficient, friendly dive operators transport you to the best sites off Kauai, Ohau, in Maui County and off Kona.

HAWAII

tions. Along with Kona's unique collection of tropical fish and cave dwelling invertebrates, it makes for fabulous photos. It also is an excellent area to view sleeping whitetip reef sharks, octopus, rays and an abundant variety of shells." Steve and partner Robin Barrett run charters from the shop's dockside location and specialize in shooting U/W videos of their guests, which are available for purchase. Their boats, a 32 foot Radon, *Sea Paradise*, and the 30 foot custom, *Nautilus*, are berthed next to the shop's parking lot for customer convenience.

Red Hill is also the favorite of Sandy Kaiser, owner of GOLD COAST DIVERS. Her 42 foot power catamaran is the largest dive boat on Kona. It can comfortably take 20 passengers (12 scuba divers and eight snorkelers) on one-half day charters. Sandy also offers smaller charters aboard a six passenger Radon. Gold Coast is in the King Kamehameha Hotel in the center of Kailua-Kona. From there it is a short walk out the side door to the loading dock.

With the uniformity of Kona's exciting, quality dive offerings, Jim Robinson of KONA COAST DIVERS has no one particular favorite. "They're all so great it would be hard to differentiate." He started the first dive business on Kona in 1967. The first impression upon entering his shop is one of professionalism. Jim and his wife Julie operate the embodiment of a full service dive operation. With a full array of dive gear, a 12 foot deep training pool and top of the line rentals, Kona Coast Divers is professional in every sense. The state of the art service department assures any equipment problems can be corrected promptly. First time charter passengers are treated to a video of diving Hawaii in the high-tech classroom. *Diver One* was built to Jim's specifications by Munson Manufacturing of Edmonds, Washington. The 36 x 12 foot welded aluminum craft smoothly cuts through water at 30 knots. Jim is responsible for the salvage and placement of a twin engine aircraft at **Plane Wreck Point**. Lying in 115 feet of water, it is recommended for experienced divers only.

Tina Clothier owns JACK'S DIVING LOCKER at the Kona Inn Shopping Village in Kailua-Kona. Tina specializes in introductory dives to "create the diver." Her favorite is the **City of Refuge**, 27 miles south of Kailua-Kona. According to

CAR RENTALS

National Car Rental
Honolulu: 836-2655
Waikiki: 922-3331
Maui: 871-8851
Kauai: 245-5636
Kona: 329-1674

Tropical Rent-A-Car
Honolulu: 836-1041
Waikiki: 922-2385
Maui: 877-0002
Kauai: 245-6988
Kona: 329-2437

NAGAMINE CAMERA & PHOTO
LAHAINA, MAUI
"Maui's oldest and most complete underwater photography store."



- **Sales** . . . authorized Nikonos, Ikelite, & Hanimex dealer staffed with certified divers.
- **Service** . . . in house repairs specializing in underwater equipment.
- **Rentals** . . . underwater and above water rentals, video camera rentals.
- **Processing** . . . fast, one hour developing, enlargements overnight.

Located off Front St.–Lahaina at 139 Lahainaluna Rd.
Open 7 days a week **(808) 667-6255**
Also visit our Fox Photo at Whaler's Village Shopping Center and at 816 Front Street in Lahaina.
A Division of Fox Photo
FOX PHOTO. "The 35mm Specialist."

DIVE LANAI



Lanai is a small island just off the coast of Maui. We're 5 minutes away from the best diving Hawaii has to offer. Over 40 different sites, with something different at each one . . . Hotel Lanai is a small resort dedicated to serving divers and underwater photographers. Personalized service, exciting diving, and the unique style of the Hotel Lanai make it the diver's choice in Hawaii. Of course, when you're not diving, we've got excellent meals, a friendly bar, secluded beaches, and beautiful scenery to keep you in love with Hawaii.

Package Price
$399.00
(per person, dbl. occupancy)
includes: 7 days, 6 nights accommodations
5 two-tank boat dives, transfers
For more information: **Call 1-800-624-8849**
HOTEL LANAI, P.O. BOX A-119, LANAI CITY, HI 96763
(808) 565-7211

Tina, "The site is an easy entry from lava rock steps. The gradually sloping bottom has abundant coral, two interesting sand patches and provides a home for tropicals, turtles and a good chance to sight rays and dolphins. Jack's Diving Locker also runs charter dives with Jeff and Teri Leicher aboard a 23 foot Mako, *Blue Dolphin*. One site they visit is **Kona Cathedrals**—a circular lava room with arches and a sloping drop-off. Tame eels and a whitetip reef shark live there. Occasionally, whale sharks, humpbacks and mantas have been sighted.

SCUBA SCHOOLS OF KONA is at the Honokohau Harbor where many dive charters originate. As many as six passengers can dive from their 25 foot *Skip Jack* twice daily. Manager Fletcher Epperson likes **Pinetrees**, a 60 foot dive with four to five archways. "As divers go around the point, there are caves, ledges and a dramatic drop-off. We've often seen mantas and spotted eagle rays as well as octopus and tropicals."

The Old Airport just north of Kailua-Kona is frequented by Scuba Schools' instructor Jeff Irwin. In a sheltered cove, the shore dive drops to 30 feet, where three sets of lava tubes run offshore. It is a great area for novice divers, with lots of tropical fish.

Aquarium (Kealakekua Bay), a state underwater park, is another general favorite. This site starts at 15 feet and drops to 110. Handfeeding is a popular draw to butterflyfish, blue striped snapper, surgeonfish and participating divers alike.

North of Kailua-Kona at Kawaihae Bay is the only dive shop chartering to the northwest dive sites. Owned by Turner and Joanne Lett, KOHALA DIVERS runs groups twice daily to sites ranging from

GOLD COAST DIVERS
KONA, HAWAII
PADI 5 STAR
NAUI PRO FACILITY

1-800-367-8047 ext. 458

Located in the King Kamehameha Hotel on Kaihea Pier, 75-5660 Palani Rd., Ste. P-1 Kailua-Kona, HI 96740
(808) 329-1328

- DAILY PERSONALIZED DIVE TOURS
- ADVANCED THRU BEGINNER DIVERS
- SPECIALTY CHARTERS
- CERTIFICATION CLASSES
- ADVANCED CLASSES
- COMBINATION DIVING/FISHING TRIPS
- SUNSET COCKTAIL CRUISES
- FREE BROCHURE ■ NIGHT DIVES
- DIVE PACKAGES ARRANGED FOR LARGE OR SMALL GROUPS

(Travel agent inquiries welcome)

U/W PHOTO REPAIR CENTERS

Doug Wallin Enterprises
P.O. Box 25702
Honolulu, HI 96825
(808) 395-2081

Randy Miller
c/o Nagamine Camera &
One Hour Photo
139 Lahainaluna Rd.
Lahaina, HI 96761
(808) 661-8054

DISCOVER KONA
ON A CUSTOM DIVE WITH
Sea Paradise

- *Unbelievable visibility in calm waters*
- *Abundant coral, fish and other sea life*
- *Underwater volcanic formations, lava tubes and arches*
- *State of the art equipment*
- *New high-powered dive cruiser*
- *Convenient dockside shop location on Keauhou Bay, just minutes from Kona's finest hotels*
- *All guides are instructor certified*

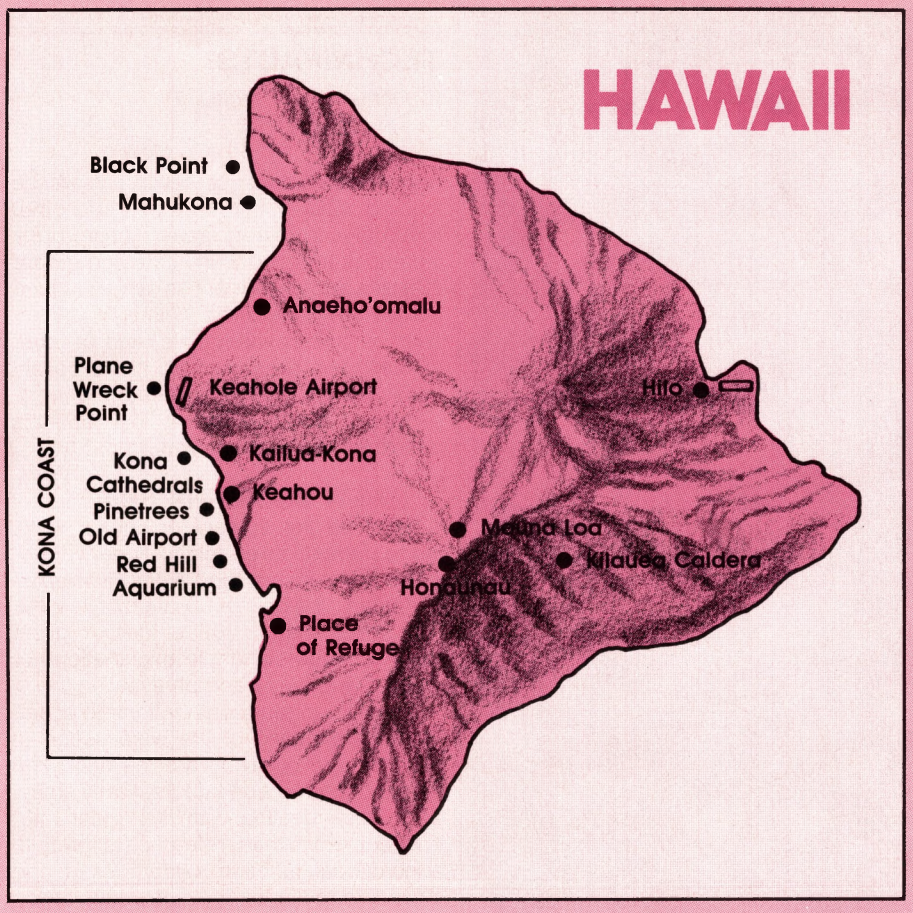
Our pampered diver service insures that your diving adventure will be unequalled. Call or write for more information:

Sea Paradise
(808) 322-2500
P.O. Box 5655 Kailua-Kona, Hawaii 96745

"We cater to both beginners & experienced divers"
JACK'S DIVING LOCKER

- LAVA TUBES, PINNACLES, CORAL, TROPICAL REEF FISH
- DAILY BOAT, SHORE AND NIGHT DIVES WITH INSTRUCTOR GUIDES
- SMALL DIVE GROUPS
- HOTEL AND CAR PACKAGES

JACK'S DIVING LOCKER
KONA INN SHOPPING VILLAGE
P.O. BOX 5306
KAILUA KONA, HAWAII 96745
808-329-7585



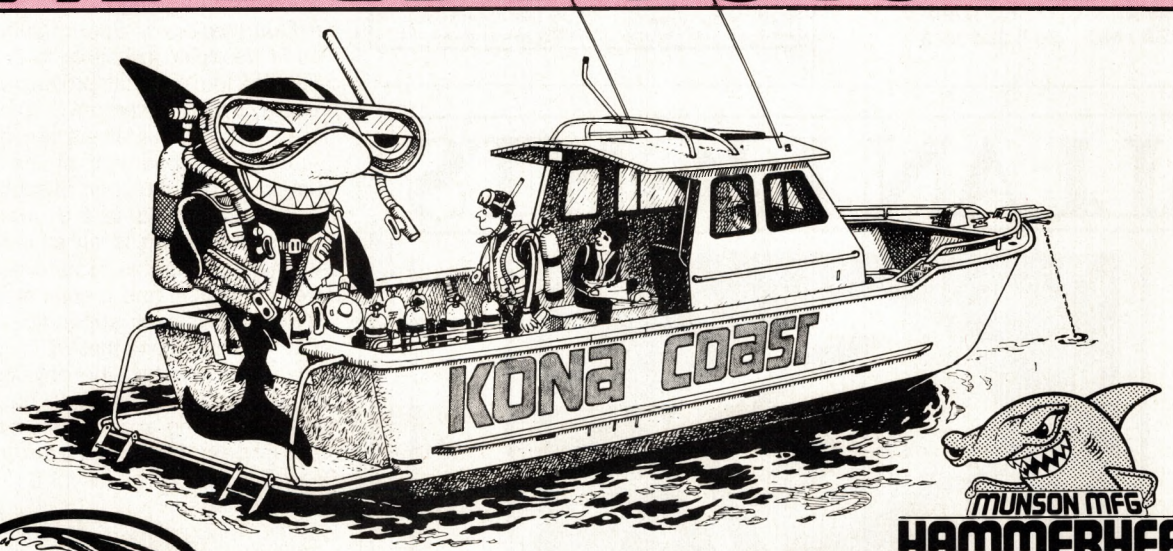
Anaehoomalu Point in the south to as far north as Malae (**Black Point**). It is a 50 to 60 foot dive with healthy coral, then a severe drop-off where spinner dolphins and other pelagics are often seen. Manager Pete Hendricks says, "**Mahukona** is a 30 minute boat ride north of Kawaihae. It's the wharf of an old sugar terminal with several shipwreck remnants. At 50 to 70 feet, a lot of industrial artifacts can be found. The reef is healthy and provides a well rounded dive."

With so much intense diving available on Kona, it is hard to find time to see all of the island of Hawaii. It offers a contrast of rain forests, deserts, world class deep-sea fishing, snow (yes, snow) skiing and two active and very safe volcanoes.

The way the dive operators feel about diving in Hawaii was best put forth by Terry O'Halloran, "Like the islands themselves, our waters are alive and full of action, providing some of the finest diving in the United States."



THE BUDDY SYSTEM



KONA COAST DIVERS

PROS OR BEGINNERS!
Charters-Air-Rentals-Retail-Courses

For reservations: 1-(800) KOA-DIVE; 1-(800) 329-8802
75-5614 Palani Road, Kailua, Lona, Hawaii 96740

MUNSON MFG
HAMMERHEAD
ALUMINUM BOATS
Member of DESTINATION HAWAII

To receive a FREE Munson 1987 Hammerhead Boat Catalog send a descriptive letter of your vessel requirements to

MUNSON MANUFACTURING, INC.
150 Dayton, Edmonds, Wa. 98020 (206) 776-8222
To purchase 1987 Munson Catalog send $5.00

THE WORLD'S FINEST DIVE BOATS 21'-52'

Air is Life!
GET SMART!
Make SPARE AIR Standard Equipment



DESIGNED AND ENGINEERED BY DIVERS — FOR DIVERS!

SPARE AIR is a self-contained air supply with over 30 breaths of EXTRA air.

It's more than just another option, it's a BREAKTHROUGH in dive technology!

- COMPACT
- EASY TO USE
- LIGHTWEIGHT

When you get ready for that next dive be sure to include **SPARE AIR** on your check list.

This outstanding addition to your equipment package is as vital to you as your air tank regulator and your Dive Buddy!

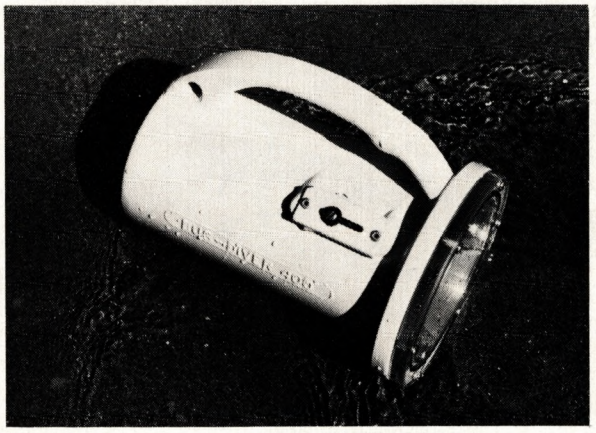


write or call
Submersible Systems
Manufacturers of SPARE AIR
18112 Gothard Street
Huntington Beach, California 92647
(714) 842-6566

SAFETY VIDEOS!!...
SCUBA REFRESHER COURSE $49.95
HOW TO USE DIVE TABLES $49.95
CME VIDEO, BAY POINT BOX 461
PANAMA CITY, FL 32407
VISA / MC (904) 234-3673

If You Dive Without A Plan, Don't Read This Ad!
Be prepared for your next dive with a documented plan using:
DIVELOG III
A Planner and Organizer
REPETITIVE DIVE WORKSHEET
• Dive Log • Training Log • Personal Log • Dive Site Log • New Equip. Log • Repair Log
• PRE-DIVE CHECKS • Graphic Equip. • Condition Check • Item Checklist
• Calculates • Easy To Use
Pull Down Menus Prints All Data
FREE 5 Disk Storage Case Available for 128K APPLE IIe/IIc
PLUS MORE!
$24.95 From:
Sea Service & Supply, Inc.
500 N. Washington St.
Alexandria, VA. 22314

ALLAN LIGHTS



800-826-0055 Dealer Inquiries Invited

TECHNIFACTS

(Continued from Page 38)

rine environment. For several years he studied wave action on pipes and other forms placed in surf areas. These forms were instrumented to indicate and record stresses and movement as surge washed across the installation. Some of the results of these experiments, and of other studies, are presented in his excellent book, *Marine Outfall Systems; Planning, Design* and *Construction*. This book is published by Prentice-Hall, Inc.

NEW BOOKS—IN BRIEF

While on the subject of books, we'd like to mention three relatively new publications. The first is *The Diver's Reference Dictionary*, the only publication of its kind. With more than 3,000 entries, it gives concise, understandable explanations of many diving terms and phrases.

Other important contributions to a better understanding of the wide scope of the literature of diving are the nearly 40 pages of conversion factors. Many times, as a book dealing with the underwater environment is read, reference is made to a numerical function seldom used and difficult to relate to. The exhaustive series of conversion tables will help all divers cope with this problem. *The Diver's Reference Dictionary* is available from Best Publishing Company, P.O. Box 1978, San Pedro, California 90732 for $17.50 plus $2 postage.

Another useful book, also available from Best Publishing Company, is *Medical Examination of Sport Scuba Divers*. This is designed primarily to serve as a guide for the medical profession. In the preface, editor Jefferson C. Davis, M.D. states, "These guidelines are dedicated to further improvement of the enviable safety record of the sport of scuba diving. We are committed to the concept that sport scuba diving is an athletic pursuit and that participants require a high degree of physical and mental fitness."

Two of the three appendices are important contributions that will help professionals in evaluating the physical condition of the diver. The book contains 61 pages, including a comprehensive three page index. *Medical Examination of Sport Scuba Divers* sells for $13.50, plus $1.75 postage.

In the Spring of 1986 Technifacts mentioned a new book on dive rescue training then in preparation. *Dive Rescue Specialist Training Manual* is now available from Dive Rescue Inc./International, 2619 Canton Court, Fort Collins, CO 80525. It sells for $14.95.

SQUALUS FOLLOWUP

A letter was received from Bill Rupert, Raton, New Mexico in which he asked, "My uncle Joseph Eiben served on the

USS *Falcon* and was involved with the salvage of the *S-51* and *S-54*. Growing up I listened for hours while he told stories of his diving experiences, but I don't remember hearing about the *Squalus* job. Can you tell me if my uncle—the crew called him Quiet Joe—was involved with that rescue and salvage?"

I have researched my files and can find no record of your uncle having been on the *Squalus* job. I also met with Captain Sibitzky, who was attached to the *Falcon* at the time of the *Squalus* job, and he states positively that Joseph Eiben was not on the *Falcon* at the time of the *Squalus* disaster. However, we checked the captain's files and found a record of Quiet Joe being on the *Falcon* during the salvage of the *S-51*. In the book, *On the Bottom*, by Ellsberg, there is a photograph of the divers who worked on the *S-51*. Your uncle is in that photograph. Captain Sibitzky believes he was transferred from the *Falcon* in 1936, about three years before the *Squalus* rescue and salvage.

Donald Montgomery, Sr., Granbury, Texas wrote, "Congratulations on the story, Salvage of the USS *Squalus*. I have a question: Was the *Falcon* an ARS type vessel?" The answer, Donald, is no. The *Falcon* was designated an ASR. While an ARS is a rescue and salvage vessel dedicated primarily to the rescue and salvage of surface ships and their cargoes, an ASR is a vessel equipped and dedicated to the rescue of the personnel and salvage of submarines. New models of both ARS and ASR type vessels are a huge improvement, in most respects, from the older, World War II models. Actually, the *Falcon* was a WW I minesweeper, as you said in your letter.

Montgomery also wanted to know the whereabouts and condition of the USS *Grapple* (ARS-7). He wrote, "I served on the *Grapple* from 1963 to 1966 and did numerous salvage jobs for the navy. Later, my home was destroyed by fire and I lost all my photos and other information about the *Grapple*. Can anyone tell me what happened to it? Does anyone have photos of the vessel?"

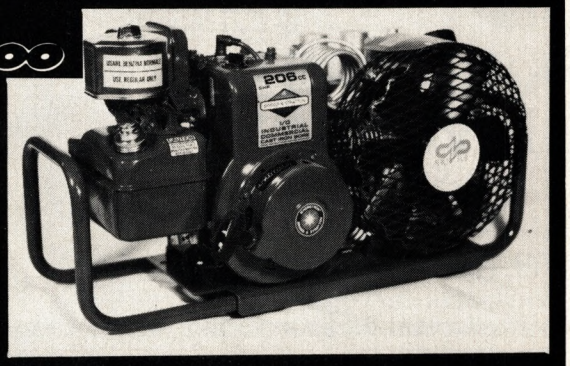
I have no definite information about the Grapple. However, I served on board the USS *Escape* (ARS-6) and worked with several other ARS type vessels. Probably both the ARS-6 and 7 have been decommissioned and possibly sold, either for scrap or other recycling. Some of the newer ARS type vessels, the *Conserver* and *Preserver* (ARS-38 and 39), to mention two, were still in commission in Pearl Harbor as recently as three or four years ago. Perhaps a reader can help locate the information requested.

PLAN FOR A PERFECT DIVE

The next Technifacts will provide some tips that should make for a better, more enjoyable and probably safer dive trip. It might even turn out to be the "perfect dive." See you next month.

Have Air Will Travel

plus 6000



The Personal Compressor. The Plus 6000 gives you the convenience of refilling your cylinders where and when you want. Our reliable technology uses multipurpose filters for complete air purity. The efficient cooling system features hours of guaranteed continuous operation. Dive when you want with reliability and cost efficiency.

The New Generation of Compressors
Air Supply 3.55 cfm.
Weight: 77 lbs.
Maximum Pressure 4,408 psi.

Olmeva Of America
107 N. 11th St.
Tampa, FL 33602
(813) 229-6411 Telex 52-847

AERO SUB



UNDERWATER DESIGN TECHNOLOGY

The Dry Pocket

The Weight Belt That Won't Hold Water
by U.D.T. Inc.

Only $19.95 suggested retail

It's the most durable and the most comfortable pocket belt on the market. Made of a PVC coated polyester mesh with a zipper for ease of changing weights. Colors: yellow, royal blue, navy, pink & navy and red.
Sizes: small (5 pocket), med. (6 pocket), large (7 pocket), and extra large.
Suggested Retail $19.95

Send Inquiries to:

U.D.T. Inc.
P.O. Box 1624, Nederland, Tx 77627
Or Phone: (409) 724-1823

MARINER SUITS



TOP QUALITY WETSUITS

YAMAMOTO MATERIAL

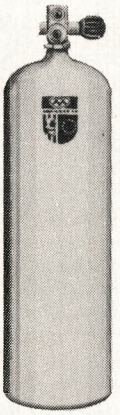
Manufacturer
Sam Jung Hwagong Co., Ltd.

ABEK CORP., 1203 Kona Drive
Compton, CA 90220 • (213) 635-6003

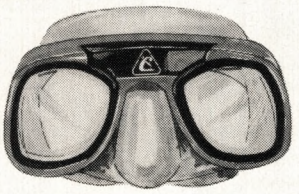
See full line of Mariner Wetsuits at DEMA booth 661/659

MIAMI #1
Pro Dive Shop
Cressi-sub

Aluminum Tank 80
K-Valve
Price $99.00



AQUANAUTS
DIVE SHOP
677 S.W. First Street
Miami, Florida 33130
Open 6 days 9 a.m. to 6 p.m. Closed Sunday
Tel. (305) 545-9000
Aquanauts Catalog $4.00



Optical Mask Silicone
Price $110.00

NOVAMARINE 535

(Continued from Page 47)

they present no entanglement problems for divers entering or exiting aft.

Amidship, at the top of the side tubes, are two molded Hypalon grab handles, also designed to serve as oarlocks. Aft are two additional molded Hypalon handles—these are fitted with transverse pins to allow their use as tie-off cleats.

Low on the bow stem is a combination stainless steel grab handle and painter's eye, bonded to the hull fabric. (For towing in heavy seas, I'd be inclined to secure a towing yoke to the handles aft, leading each leg to the eye at the stem.) Inboard, low on each of the side tubes, are Velcro fasteners for securing the two hardwood oars out of the way. The marine plywood transom is permanently bonded to the side tubes and is rated for outboards up to 40 horsepower, although 15 to 25 hp is recommended. Floorboards are also of marine plywood, treated with a non-skid surface and riveted to the stringers.

In addition to the ash oars already mentioned, standard equipment includes an air pump with pressure gauge, a flagstaff, a repair kit, bailer scuppers with one-way valves, one main and one auxiliary engine mounting plate on the transom. Optional equipment includes a wooden foredeck/bowdodger, a swim ladder, a steering console, driver and passenger seats, transport bags, a wood and rubber fuel tank retainer and a boat and motor cover.

Sea trials for the Navy 535 took place in San Diego's Mission Bay and in the choppy waters outside the harbor. The ride inside the bay was slow (because of the speed limit) and comfortable, but once outside we could run to our hearts' content. Picking up speed after passing the jetty, the boat climbed to an easy plane. At speed—I couldn't guess how fast, but we were going at a pretty good clip—the boat bounced some as the deep V-hull pierced each crest. Tracking was quite straight, as much as could be expected under these conditions, and sharp turns were executed with relatively little sideslip. Generally, the Navy 535 performed admirably for a boat of this size.

Overall, the Novamarine 2 Navy 535 appears to be a quality product. Novamarine 2 has so much confidence in the construction that it warrants the Hypalon material and its seams for ten years. Its compact size, light weight, well planned design and features make this a very versatile boat, especially well suited to small diving expeditions.

For information on the Navy 535 and other fine Novamarine 2 inflatables, contact Nautica, 6135 NW 167 St., Miami, FL 33015; or Water Education Training (WET), 7094 Miramar Rd., San Diego, CA

Dive into history with The Atocha treasure salvagers.



Spend a week on board, as a working crew member, searching for gold, silver and emeralds from Mel Fisher's treasure-laden Spanish galleon, Atocha.
For more information, call or write:
Sea Hunt, Inc., P.O. Box 250, Key West, Florida 33041.
(305) 294-8135.
SEA HUNT, INC.

Home and Afield, Inc.
P.O. Box 1023
Valdosta, GA 31603-1023
1-800-225-3122
GA (912) 244-3122

VIDEOS

TITLE	PRICE	MIN.
Scuba Refresher Course	$49.97	37
How To Use Dive Tables	$49.97	37
Of Sharks and Men	$29.97	93
Scuba Run	$49.97	50
Ghost Fleet/Gold Coast	$39.97	27
Florida Diving-Pennekamp	$54.97	58
Dive British V.I.	$39.97	30

Order by Check, Money Order or Credit Card No.
Freight/Handling $2.50 Send for a FREE catalog
Please indicate VHS or BETA.



PRESCRIPTION FACE PLATES
FOR DIVERS WHO WEAR EYE GLASSES
My custom-made, hydro-optically ground, prescription face plate is the original and only method of correcting your vision underwater exactly as your eyeglasses do on land without underwater distortion, lens fogging or breakage problems. Precision ground safety lenses permanently bonded to the face plate of any mask with a proven optical epoxy made for underwater use. Personally made by an optician who is a diver. Used and approved by divers in all 50 states, over 40 foreign countries, U.S. Navy, U.S. Army Engineers, and Smithsonian Institute. Send your own mask or face plate with your lens prescription and distance between eyes. Only $79.50, including return postage, for my exclusive, super extra large, wide angle lenses. Or send for free literature. Unconditionally guaranteed. My twenty-seventh year.
LEONARD MAGGIORE
Optician for Divers
69-03 Fresh Pond Road
Ridgewood, Queens, NY 11385
718-386-5339

Treasure
Brought To You By White's PI 1000

This is a Sophisticated Underwater Pulse Induction metal detector. It is easy to use, guaranteed to depths of 200 feet, and gives both an audible and visual target indication.



$499.95

• Excellent Sensitivity for Coins, Rings, and Relics made of Gold, Silver, and Other Metals.
• Compare the PI 1000 Series 2 to Underwater Detectors Costing Twice the Price!

FREE CATALOG
AUTHORIZED DEALER
TOLL FREE: 1-800-547-8911

White's
1011 Pleasant Valley Rd.
Sweet Home, OR 97386
Dept. SD-4
DEALER INQUIRIES INVITED

INTERNATIONAL CONTACT POINTS
White's Electronics Intl., Ltd.
13 Harbour Rd.
Inverness, Scotland 1V1 1RY

SUBATEC
SWITZERLAND

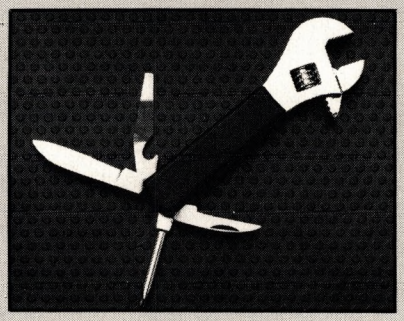
THE PROFESSIONAL CONCEPT IN U/W PHOTOGRAPHIC EQUIPMENT



– SUBATEC S100/S200 SERIES . . . The most performant underwater strobes available today!
– SUBAWIDER II . . . Wide-angle supplementary lens with finder 90° underwater (17mm) for Nikonos 35mm lens.
– SUBALIGHT . . . Video/Film U/W modular lighting system. 10 to 800w., 15 to 280 min. burn time!

AKIMBO, INC., 1435 Estrella Dr.
Santa Barbara, California 93110
(805) 682-7161

MURPHY'S FRIEND
Every Murphy Box should have this SPORTOOL by WATERSPOT



The Almost Complete Dive Tool
Non-Slip Handle
Adjustable Wrench
Marlin Spike
Slotted Screwdriver
Phillips Screwdriver
File and Bottle Opener
Knife Blade
Send check or money order $20.
Includes tax and shipping costs.
WATERSPOT
8228 N. Marina Pacifica Dr.
Long Beach, CA 90803
213/596-8111

92191. With a retail price of $2,520, this boat is worthy of further investigation by any prospective buyer.

U/W VIDEO COURSE

(Continued from Page 49)

sition from the outside view to the scenes inside the darkened interior, Jim decided to overlap and match the action. From the outside, he shot as they approached the opening and turned the camera off as they paused to look inside. Then, Jim entered the hull and began his next shot with Cathy and Ro pausing for a few seconds and then swimming inside. The result was an overlap of a matching action—the outside and inside views of the divers pausing before swimming inside the hull.

To sum up this lesson, you can make your U/W videos much more interesting if you develop your action sequences with a basic LS, MS, CU and LS pattern and use cut-ins, cut-aways and overlapped action to break up long scenes. You don't, however, need to follow the exact pattern each time. Vary it to fit changes in the action and purpose of your videos.

OCEAN DIVERS EVENTS

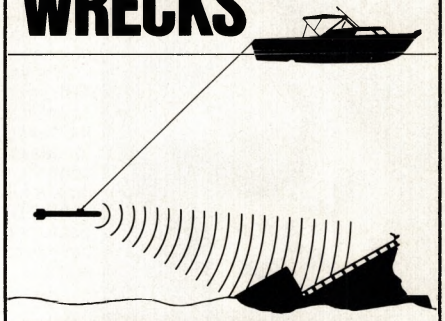
This year, Ocean Divers of Key Largo, Florida will run monthly instructor development courses, master diver specialty courses, Dick Rutkowski's hyperbaric chamber training programs, Stephen Frink's underwater photo seminars, and John Pennekamp State Park's Underwater Photo Contest.

For more information call Pam at Ocean Divers: (305) 451-1113.



"I hate to disturb you, but I'm afraid you are standing on my flippers."

DIVE YOUR OWN WRECKS



FIND THEM WITH TODAY'S PROFESSIONAL TECHNOLOGY THE FISHER PROTON MAGNETOMETER

This low cost, highly sensitive proton magnetometer detects large metal objects up to 800 feet away. And it's easily adjustable to the magnetic field in your area. Fishers even provides a way to pinpoint a wreck so you can buoy its location.

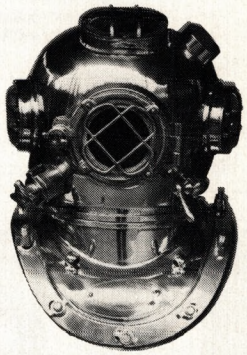
• Low cost—only $4,350 • 4″ x 12″ x 8″ contro! unit • 4′ x 6″ towable fish • LED display visible at 10 feet • 150′ tow line (400′ option available) • Detects: 1 gal. drum at 6′; 55 gal. drum at 25′; barge at 200′; large ship at 800′.

For more information about Fishers' fine products write for our free catalog.

J.W. FISHERS MFG. CO.
ANTHONY ST. (DEPT. ST) TAUNTON, MASS. 02780
(617) 822-7330

WEAR A DIFFERENT HAT
BECOME A PRO DIVER

One complete course including air, mixed gas, saturation, U/W cutting and welding, and chamber operation.



An eligible institution for student loans & grants. (Located in the Port of Philadelphia)

DIVERS ACADEMY OF THE EASTERN SEABOARD
2500 So. Broadway • Camden, N.J. 08104
Call 1-800-238-DIVE in N.J. (609) 966-1871

NAME _____
ADDRESS _____
CITY _____ ST _____ ZIP _____
PHONE _____
SD-47



AquaVideo T.M.
U/W Video Systems

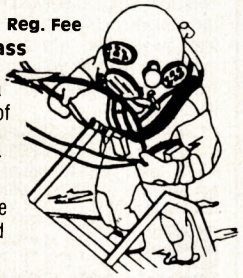
AquaVideo offers more than 20 standard design U/W housings for amateur video systems, as well as professional video equipment. Custom-fitted (with short delivery times) housings can be made for any video system. Special inspection systems are available for commercial divers.

Five years of manufacturing experience make AquaVideo THE source for underwater video equipment. All AquaVideo™ housings feature exclusive advanced sealing technology for extreme reliability, as well as careful design for easy operation. Our SuperNova™ 350-700 watt lights combine maximum power, wide beam angle, and compact size. A full line of accessories completes the system.

ASK THE PROS WHO KNOW: NASA and the U.S. Navy Seals head a long list of satisfied pros and amateurs who have purchased AquaVideo™ housings and SuperNova™ lights.

AquaVideo, Inc.
5065 N.W. 159th St., Miami, FL 33014
(305) 621-0222
© 1986 by Rick Frehsee for MediaTech Inc.

Become A Commercial Deep Sea Diver
For The Lowest Total Tuition of $1,295 + Reg. Fee For The Next Class



Coastal offers you a *complete* program of diver training in our Basic Air Course for only $1,295, plus a $100 registration fee —a price unequalled anywhere!

We'll teach you to become a well-rounded professional diver, trained in all phases of diving: salvage, construction, research and oil field, including hard hat diving.

Our comprehensive diver course is completed in only 11½ weeks (427 full-time hours) of training. Our safety record is unmatched—no accidents or fatalities in over 36 years of operation.

Join our next class. Write today for details. Or call (415) 532-4211.

Coastal School of Deep Sea Diving
320 29th Avenue, Oakland, CA 94601
(415) 532-4211
For full details and application form enclose $3 U.S. for handling and postage.

Name _____
Address _____
City _____
State _____ Zip _____
SD-47

seaspace '87

INTERNATIONAL UNDERWATER PHOTO COMPETITION

Numerous categories, superb prizes. International trips, photographic equipment, and more. **Seaspace '87** is the major sport diving event of the southwest. Sponsored by the Houston Underwater Club.

For more information and an entry form, contact:

Seaspace '87:
Photo Contest
P.O. Box 3753
Houston,
Texas 77253

Hyatt Regency Hotel
Houston, Texas
June 5-7, 1987

seaspace
HOUSTON UNDERWATER CLUB INC.



FREE UNDERWATER METAL DETECTOR TEST REPORTS

From leading Treasure Hunting magazines. Expert reports on how to find coins and relics. Send coupon for free copies. For operating manual enclose $2.00.

PLEASE RUSH 1280-X
☐ TEST REPORTS ☐ SPEC SHEET
☐ CATALOG ☐ OPERATING MANUAL $2.00
NAME
ADDRESS
CITY
STATE ZIP
FISHER
(209) 826-3292
FISHER RESEARCH LABORATORY
1008 I STREET, DEPT. SD
LOS BANOS, CA 93635

BROWN MEMORIAL AWARD

The first Charlie Brown Memorial Award recipient is Walt Hendrick, Sr., former national training director of the National Association of Underwater Instructors. The award was established by the Brown Memorial Foundation. Dr. Charles Brown, physician, author and lecturer, lost his life in a nondiving drowning accident in 1981.

The award is presented to individuals who make voluntary contributions to the sport diving field "in the spirit of Charlie Brown." The award consists of a sport jacket with an award crest and plaque. Hendrick accepted the award at NAUI's International Conference on Underwater Education in Miami, Florida last October.

At the event Hendrick also accepted a NOGI award for Sports/Education from the Underwater Society of America.

PALMETTO TRAINING DIRECTOR

Palmetto Scuba on Hilton Head Island, South Carolina, a PADI five star training facility, has appointed Robert P. Javins facility training director. He is a PADI master scuba diver trainer, a recent graduate of the University of South Carolina with a degree in marine biology, and an American Red Cross instructor in First Aid and CPR. He offers a full range of specialty courses, including wreck with underwater artifact diving. He also specializes in courses for young adults.

For more information contact Javins at Palmetto Scuba, 220 Triangle Square, Hilton Head Island, South Carolina 29928; (803) 681-3483.

LONG ISLAND DIVER STUDY

In the spring of 1986 the Long Island Sound Taskforce put out a call for volunteer sport divers to report on conditions they observed at various sites in western Long Island Sound. The purpose of the study was to identify areas that might show signs of eutrophication, a state of low dissolved oxygen owing to excess nutrients in the water.

From the results of the 1986 diver reports, it would seem the western Long Island Sound is relatively healthy. Preliminary studies however, by investigators for the EPA's Long Island Sound Study, Dr. Barbara Welsh and Dr. Don Rhoads, have found low dissolved oxygen values in the same general areas that were dived. Thus, the Long Island Sound Taskforce will again call for volunteer sport divers this spring.

For more information, contact the Long Island Sound Taskforce, Stamford Marine Center, Magee Ave., Stamford, CT 06902; (203) 327-9786.

SDM travel SECTION









Walker's Cay offers its guests the opportunity to explore fascinating underwater sites, plus time to relax or enjoy other watersports, including deepsea fishing.

WALKER'S CAY

Resort Outpost At The Top Of The Bahamas

TEXT AND PHOTOGRAPHY BY STEPHEN FRINK

Walker's Cay is a small island of approximately 100 acres at the uppermost tip of the Bahamas, in the Abaco chain. Unlike so many of the dry, flat islands that dot the Caribbean, Walker's Cay features a broad expanse of lawn, mature hardwood trees and a hilly elevation some 80 feet above sea level.

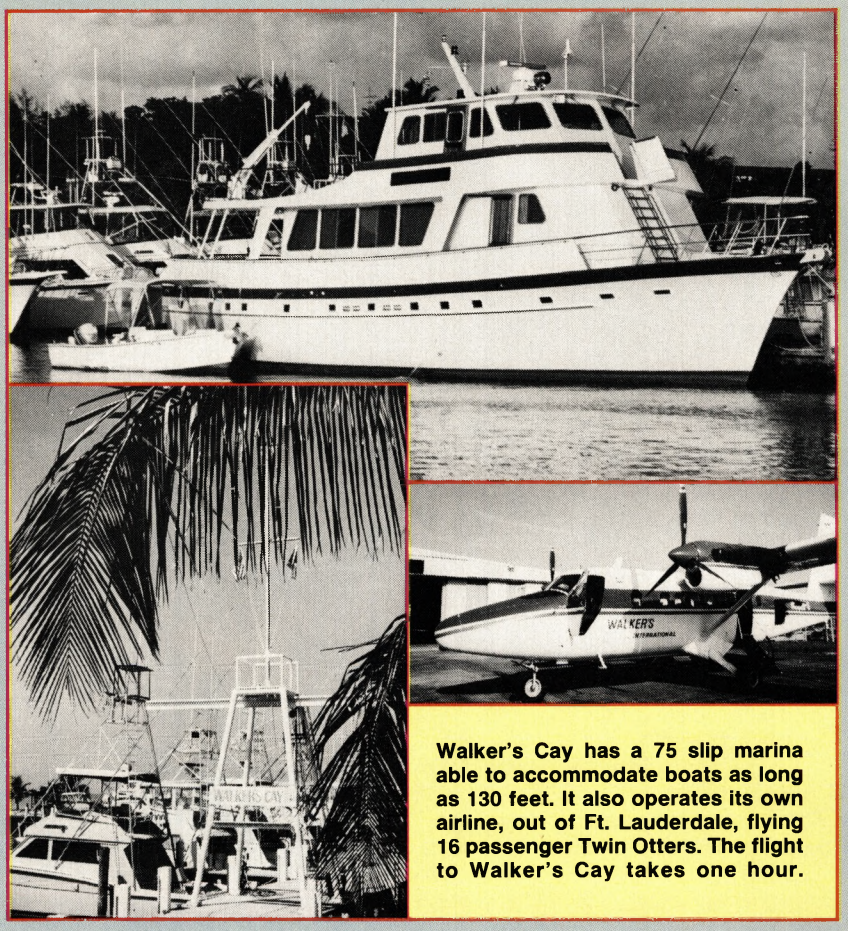
The island derives its name from Thomas Walker, a zealous Admiralty Court judge in Nassau during the early years of the 18th century. Too often, government officials were offended by his stringent adherence to the letter of the law and Walker's posting to this remote Out Island was a banishment of sorts. Today exile to Walker's Cay is a much more hedonistic escape and offers a totally self-contained resort with a heavy emphasis on watersports. There is a hotel consisting of 62 rooms and four villas, all of which are air-conditioned and tastefully decorated, freshwater and saltwater swimming pools, a 75 slip marina able to accommodate boats up to 130 feet long, two bars (one at poolside and one at the marina), a restaurant, a commissary, four tennis courts, a volleyball court, disco and game room and a very complete gift shop featuring Androsia fashions, bathing suits, T-shirts, diamonds, emeralds, gold, perfume, watches, books and liquor.

The marina is the center for many of the recreational activities at Walker's Cay. Here private and charter fishing craft depart for their daily excursions to the sand flats to cast for bonefish, or offshore to try their luck with such open ocean pelagics as blue and white marlin, dolphin, wahoo and tuna. The reef fishing is also productive at Walker's Cay, but the resort is sensitive to providing for the needs of both the divers and fishermen among its clientele. To that end, the fishing and diving are generally conducted on separate reefs. The groupers the divemasters have so carefully trained and handfed over the years are thereby spared catch of the day status.

The full service dive shop is dockside and operates under the direction of Sue Graves, with a staff including two instructors and two divemasters. The dive boat is a sturdy and spacious 34 foot Ensign V-hull diesel that can comfortably accommodate up to 24 divers, although the average load is considerably less. As with most custom dive boats, there are tank racks, a walk-through transom and a platform, but the extra touches such as a camera rinse barrel and complimentary towels help make the Walker's Cay daily excursion more special.

From the moment the diver arrives at the dive shop, the emphasis is on service. If instruction is requested, Walker's Cay is a PADI training facility able to handle resort courses, open water certifications or even divemas-

travel



Walker's Cay has a 75 slip marina able to accommodate boats as long as 130 feet. It also operates its own airline, out of Ft. Lauderdale, flying 16 passenger Twin Otters. The flight to Walker's Cay takes one hour.

ter training. For those wishing daily reef excursions, the tanks will be waiting on the boat and rental equipment is easily accessible. The dive sites are within 15 minutes of the resort and are typified by shallow reef structures, coral canyons and caverns and abundant marine life. While the majority of the dive sites are in the 35 to 60 foot range, there is also a deeper reef found in 90 to 100 feet.

The deep dive is generally a drift over low profile corals in a spur and groove formation punctuated by colorful barrel sponges and scattered huge concentrations of hard corals. The shallower dives are typically done with the boat at anchor and feature corals of much higher profile, swim-through caves and ledges and a tremendous variety of Caribbean tropical fish life. Queen's II is an example of such a reef. The top is at 35 feet and it drops to 60 feet along a mini-wall. Here elkhorn, star and brain coral are most prolific, visibility is often in the 100 foot range, and encounters with pelagic species such as yellowfin tuna, jacks, turtles, and eagle rays almost predictable. There is consistent schooling fish activity as well. Especially interesting is the resident school of ballyhoo.

During our recent stay at Walker's Cay we were able to dive with Sue Graves and Cheryl Kirz. Cheryl presently serves as director of sales for the resort but worked as a divemaster/instructor for several years prior. We asked Cheryl and Sue to show us some of their favorite sites, and one we were all especially thrilled with was White Hole. Here the maximum depth is but 35 feet (more like 20 to 25 feet over most of the reef) and the coral concentrations particularly thick and healthy. Although the coral formations, filled with glass minnows and copper sweepers, are beautiful, the fish feeding antics are perhaps the most memorable events. As soon as the divers enter the water the groupers and rock hind approach, expecting a handout. Sue fulfilled their expectations with morsels of conch. Nassau, tiger and black groupers gathered in a controlled frenzy oblivious to the presence of the photographer.

Nick's Reef is unusual for the formations of black coral found in less than 35 feet, and while it is not a common occurrence, porpoise have been spotted cruising the reef on more than one occasion. Jeanette's Reef features garden eels in the sand at 35 feet, huge stands of elkhorn coral with high profile brain corals along the periphery, stingrays and eagle rays and beautiful reef populations.

Jeanette's also served as our night dive site and proved rich with lobster, crabs, parrotfish, barracuda and even a cooperative octopus of aquamarine shading. Sue's Reef is another example of a shallow reef honeycombed with coral arches and passageways. Once World War II relics were frequently uncovered here, but now rays, small Caribbean tropicals and reclusive jawfish are the most frequent treasures.

Since these reefs are so close to the resort, the time we might have spent in transit was often spent relaxing on one of the sandy beaches. Seal's Cay is especially well-suited for an afternoon's R & R. This small islet offers a scenic stretch of sand and fascinating snorkeling just offshore. Its proximity to the prime dive sites makes it a fine spot for a picnic between dives. Sunset Beach is within a ten minute walk of the resort and features shelling, palm trees and, of course, world-class sunsets.

Walker's Cay operates its own airline–Walker's International–from Ft. Lauderdale, flying DeHaviland Twin Otters (16 passengers). The one hour nonstop flight from Ft. Lauderdale to Walker's is particularly easy. There is free parking at the Ft. Lauderdale end, courteous Bahamas Customs and Immigration at the Walker's Cay end and nowhere to misplace bags in between. I found Walker's Cay to be an extremely well managed and professionally operated resort in general, and the dive operation specifically safe, knowledgeable and friendly. For further information or reservations, please contact Walker's Cay Hotel and Marina, 700 SW 34th Street, Ft. Lauderdale, Florida 33315 or phone toll free (800) 327-3714. Florida residents may phone (800) 432-2092 toll free or (305) 522-1469.

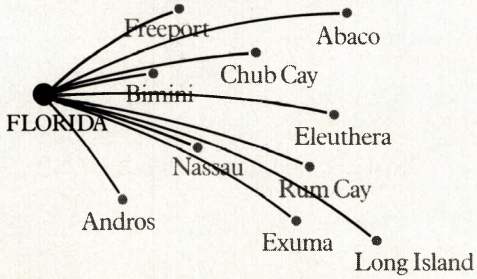
The Bahamas.
When you get down to it, no other place gives you as many diving experiences.





Historic wrecks. Drift-diving along the Continental Shelf. Magnificent marine life. Visibility up to 200 feet. The challenge of blue hole diving. Spectacular drop-offs. Brilliant coral reefs and canyons. Discovering countless "critters." 100,000 square miles of uncrowded ocean. A different place to dive every day.

Just off the Florida coast.
It's all there in The Bahamas.



For sports information, call **800-32-SPORT** toll free. For hotel reservations, see your Travel Agent or call 800-327-0787. In Dade County, 443-3821.

It's Better In The Bahamas.

DIVE BARBADOS.

When you come up, it's not just for air.



Experience Barbados' unique brand of personal attention and hospitality. Choose a plush resort or charming inn. Go sightseeing and shopping. Enjoy superb dining. Dance all night at glittering night clubs. Let Barbados turn your dream dive into a true vacation.

Barbados gives you everything your Caribbean dream dive should be. Enjoy a true vacation.

Our all new dive packages include 7 nights hotel accommodations, per person double occupancy. Also 6 dives, including tanks, backpacks, weights and belts. Prices effective April 15-December 15, 1987.

BARBADOS DIVI SOUTHWINDS BEACH HOTEL

Underwater Barbados

Peter Hughes Diving — **$404**

DIVI HOTELS

Contact: 800-367-DIVI

Palm Beach Hotel

DIVE BARBADOS JOLLY ROGER WATERSPORTS — **$380**

Contact: The Travel Group 703-893-4704

BUCCANEER BAY HOTEL

DIVE BARBADOS JOLLY ROGER WATERSPORTS — **$416**

Contact: The Travel Group 703-893-4704

HILTON INTERNATIONAL BARBADOS

DIVE BOAT SAFARI Barbados

— **$494***

Contact: 800-HILTONS or Aqua Adventures 212-686-6210

*10 dives included.

SCUBA TOURS

—Prices start at **$325**

Contact 809-428-6659

For airline reservations call BWIA International.

BWIA International

in Miami —305-371-2941

in New York—212-581-3200

Nationwide —800-327-7401

BARBADOS

EAGLE ANNIVERSARY

December 19, 1986 marked the one year anniversary of the sinking of the *Eagle*. A 287 foot freighter, the *Eagle* is among Florida's largest artificial reefs. Approximately five miles offshore Islamorada, she lies in 110 feet of water, rising to within 65 feet of the surface. Over the past year divers have observed the transition from a deteriorating ship to a burgeoning reef. Lady Cyana Divers, visiting the *Eagle* an average of three to four times per week, reports the presence of numerous tropical inhabitants.



To commemorate the first anniversary of the *Eagle*'s sinking, Lady Cyana Divers held a special dive trip. Many of the project's sponsors joined in for the festivities.

Out of concern for uninhibited growth and development of this artificial reef, local dive shops in the Islamorada area have voluntarily prohibited their divers from spearfishing on the *Eagle*. Private dive boats are asked to honor this moratorium. In addition to the spearfishing ban, for diver safety, local dive operators have developed and privately maintain an underwater mooring buoy system to eliminate anchoring on the wreck.

Lady Cyana Divers has added Donna McLaughlin, underwater model and photo instructor, to its staff. She heads the reservation department.

Lady Cyana Divers trips are scheduled twice daily on 40 and 60 foot boats. A PADI and a NAUI Pro Facility, it offers a variety of scuba education courses from open water to divemaster and specialties. Underwater photography courses are offered by Chris McLaughlin.

Lady Cyana Divers has a toll free number. For reservations and information call (800) 221-8717 outside Florida or (305) 664-8717 within the state. Written inquiries or reservations should be addressed to Lady Cyana Divers, P.O. Box 1157, Islamorada, FL 33036.

RSL TELEPHONE

The January SDM listed an incorrect telephone number for Research Submersibles Limited on Grand Cayman. The correct Cayman telephone numbers are (809) 949-3870 and (809) 949-8296.

CAYMAN ISLANDER... A DIVERS DEN

across from Seven Mile Beach, at Bonus Prices.

BONUS DIVE PACKAGE $399* 8 DAYS/7 NIGHTS DOUBLE

With BOB SOTO'S DIVING

*Prices are subject to change without notice and do not include a 6% room tax or 10% service charge. Package valid April 25/87 - Dec. 14/87.





An off beach hotel for Smart Divers, the Cayman Islander Hotel offers air conditioned superior rooms with satellite T.V., fresh water pool, Poolside Bar and Cafe...The hotel is located only a few yards from one of the most beautiful beaches to be found anywhere... The best diving in the Caymans is done with Bob Soto's Diving Ltd., which features a fully equipped dive shop on the premises...Enjoy our **BONUS FILLED BONUS DIVE PACKAGES** featuring: room, full breakfast daily, round trip transfers from the hotel to your dive boat, unlimited shore diving, six days of two tank morning boat diving, one night or afternoon boat dive per stay, tanks, weights, weight belt and dive master. For further information contact our U.S. Sales & Reservation Office—**USA 800-922-7555, FLA 800-423-7555...** 5821 Hollywood Blvd., Suite 203, Hollywood, FL 33021.

Bob Soto's DIVING LTD.

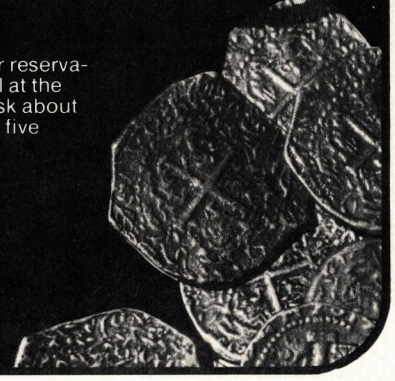
BONUS SPECIAL

Mention this ad when making your reservations and **receive free**, upon arrival at the hotel, a Bob Soto's T-Shirt. Also ask about our **BONUS PRICES** for three and five night packages.



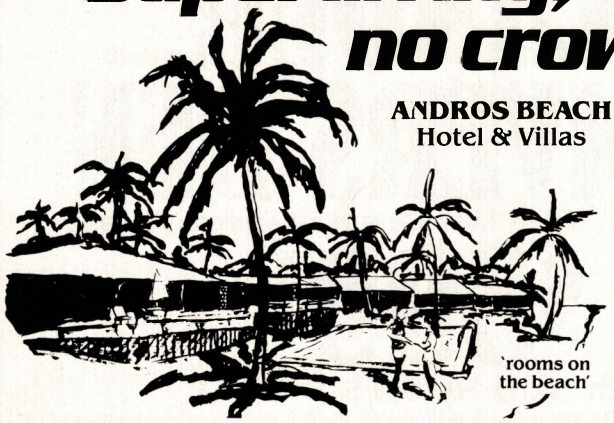
Cayman Islander

GRAND CAYMAN, B.W.I.



BAHAMAS

'In Andros, you'll get Superdiving,-and no crowds'



ANDROS BEACH
Hotel & Villas

3 DAYS
2 NIGHTS
as low as
$395
(p.p. dbl. occ.)

8 DAYS
7 NIGHTS
as low as
$865
(p.p. dbl. occ.)

3 DIVES PER DAY
(2 on arr. & dep. days)
INCLUDES: R/T Airfare • Ground Transfers • A/C Room • 3 Meals Daily • Room Taxes and Tips.

140 miles of unexplored barrier reef – and not another dive boat in sight. Coral gardens, drop-offs, huge ship-wrecks, exotic blue-holes. 15 deluxe air-conditioned rooms, full-service restaurant and bar overlooking a fresh-water pool. Two custom-dive boats. The perfect alternative to the 'follow the mob' syndrome.

Call or write for details!

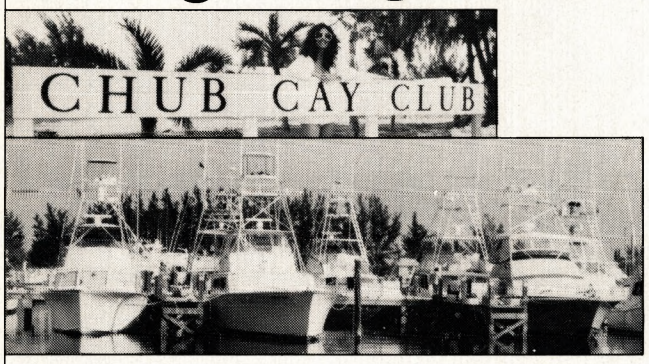
TOLL FREE
800-327-8150
(305) 763-2188
FLORIDA

NEAL WATSON'S UNDERSEA ADVENTURES

ANDROS UNDERSEA ADVENTURES
P. O. Box 21766
Ft. Lauderdale
FL 33335

BAHAMAS

At Chub Cay – spend your days in the Tongue of the Ocean and your nights at the Club'



3 DAYS
2 NIGHTS
as low as
$399
(p.p. dbl. occ.)

8 DAYS
7 NIGHTS
as low as
$975
(p.p. dbl. occ.)

3 DIVES PER DAY
(2 on arr. & dep. days)
INCLUDES: R/T Airfare • Ground Transfers • A/C Room • Breakfast and Dinner Daily • Room Taxes and Tips.

Chub Cay is one of the finest 'total' diving and fishing resorts in the world. Exotic coral falls into a deep-water trench forming miles of wall diving – a place where shallow and deep-water species mix for unsur-passed diving thrills. Come stay with us on our own special island. Self-contained, friendly, unique.
E-6 Photo Lab on Premises.

Call or write for details.

TOLL FREE
800-327-8150
(305) 763-2188
FLORIDA

NEAL WATSON'S UNDERSEA ADVENTURES

CHUB CAY UNDERSEA ADVENTURES
P. O. Box 21766
Ft. Lauderdale
FL 33335

BAHAMAS

'Dive the Bimini Wall, -and other legends'



Neal Watson, a modern dive legend and owner of Undersea Adventures.

Dive Moray Alley, the wreck of the 'Sapona,' Victory Reef, The Atlantis Road, and drift along the 'edge of the world,' suspended in the crystal-blue water of the Gulfstream. At night, follow Hemingway's footsteps to the local pub.



40' CUSTOM-DIVE BOAT 'SHARKBUSTER'

BIMINI STANDARD
3 days
2 nights
As low as **$325**
per person, double (includes 7 dives)

BIMINI DELUXE
3 days
2 nights
As low as **$399**
per person, double (includes 7 dives)

STANDARD 8 Days/7 Nights
$725 per person, double
(includes 22 dives)

DELUXE 8 Days/7 Nights
$975 per person, double
(includes 22 dives)

INCLUDES: Round-trip Airfare • Transfers to and from Airport • Air-conditioned accommodations • Deluxe: Gourmet Breakfast and Dinner Daily (MAP) • Free Tennis • Fresh-Water Pool • Standard: 3 Meals Daily • All Gratuities.

For more information or reservations: Write or Call Today!

TOLL FREE **800-327-8150**

NEAL WATSON'S UNDERSEA ADVENTURES

BIMINI UNDERSEA ADVENTURES
P. O. Box 21766
Ft. Lauderdale, FL 33335
Telephone (305) 763-2188

VENEZUELAN MEDICAL SEMINAR

Dr. Michael Powell of the Institute of Applied Physiology and Medicine in Seattle, Washington will conduct a one week class on advanced diving physiology. There will also be diving every day.

The course will take place in Puerto la Cruz, Venezuela, May 8-15. Air fare from Miami is included in the cost. For information contact Sea Ventures, 144 Railroad Ave., Suite 204, Edmonds, WA 98020; (206) 778-7622.

CORAL SEA DIVING SERVICES

SDM's March Diving News From Down Under contained an error concerning the North American booking agent. Coral Sea Diving Services' president, Brian Tweedie, advises us that Sea Safaris is the appointed information center and booking agent for that company and charters on its new live-aboard cruiser M/V *Aquanaut*.

For more information about live-aboard cruises on the Great Barrier Reef contact: Sea Safaris, 3770 Highland Avenue, Suite 102, P.O. Box 512, Manhattan Beach, California 90266; in California (800) 262-6670, outside California (800) 821-6670.

PALAU MAP

An interesting historic and geographic tourist map of Belau (Palau) has been published depicting a wide variety of information on one of the Pacific's most beautiful and interesting archipelagos. The colorful publication is actually a one sheet atlas consisting of 15 map illustrations displaying an oceanic view of a classic atoll, a profile of a rock island as well as descriptions of little known outer islands within the Palau group. The World War II battle for Peleliu, one of the bloodiest in the war, is described along with the locations of sunken Japanese ships.

Designed by Pacific cartographer, William H. Stewart, the pictorial map contains interesting notes on Palauan culture, values, social system and the use of traditional money as well as anecdotes and little known facts on such marine life as the giant *Tridacna* clam.

The map may be obtained ($2.50) from Western Carolines Trading, Box 280, Koror, Palau 96940.

TOZER TO RIDING ROCK

The Riding Rock Inn has added Colin Tozer to its staff. He will act as head divemaster in charge of day to day operations. Tozer has ten years of experience as an open water instructor. He holds specialty ratings in equipment repair, deep diving and U/W photography.

For more information telephone (800) 272-1492 or (305) 761-1492.

THE BONAIRE BEACH HOTEL









One of the world's greatest dive sites now makes your vacation even more exciting with **free** windsurfing, **free** sailing, **free** mini-golf, **free** day and night tennis, and our **free** games and activities program. All this, plus the largest white sandy beach on Bonaire, the Black Coral Casino and the new, certified Mistral Windsurfing School.

Our complete 7-night dive packages begin at $633 and include unlimited shore diving.

For information and reservations call I.T.R. 800-223-9815. In N.Y. 212-840-6636. Or Bonaire Scuba Center at 800-526-2370. In N.J. 201-566-8866.

COPTHORNE HOTELS

ALM Antillean Airlines Takes You To The Best Diving and Snorkeling in The Caribbean . . .

Curacao and Bonaire, two great destinations for avid divers and snorkelers, are served by ALM every day of the week from both Miami and New York. Convenient connections and special airfares available from most areas in the U.S. See your travel agent or dive shop for package and flight information.

To receive brochure, "ALM Takes You Diving In The Netherlands Antilles," circle reader service card or write to Dive Brochure, P.O. Box 10338, Riviera Beach, FL 33404-1338.



ALM ANTILLEAN AIRLINES

Diving News From Down Under

Qantas Offers Lowest Fare To Australia

BY GERI MURPHY

If you have ever dreamed of taking a diving trip to Australia, but felt you could not afford it, this may be your chance. Qantas, Australia's international airline, is now offering a super low round trip air fare of $896 from the West Coast of the U.S. The bargain fare is now competitive with many flights to the Caribbean.

In addition to the $896 West Coast fare, there is also a special $686 round trip fare from Honolulu to Australia.

RULES

The terms of the new fare are quite simple. It applies to a single Australian destination only. You have a choice of Cairns, Brisbane, Sydney or Melbourne. For most divers, the choice would be Cairns, the gateway to the Great Barrier Reef. Most of the live-aboard dive boats depart this port city on their way to various locations in the Coral Sea or Great Barrier Reef.

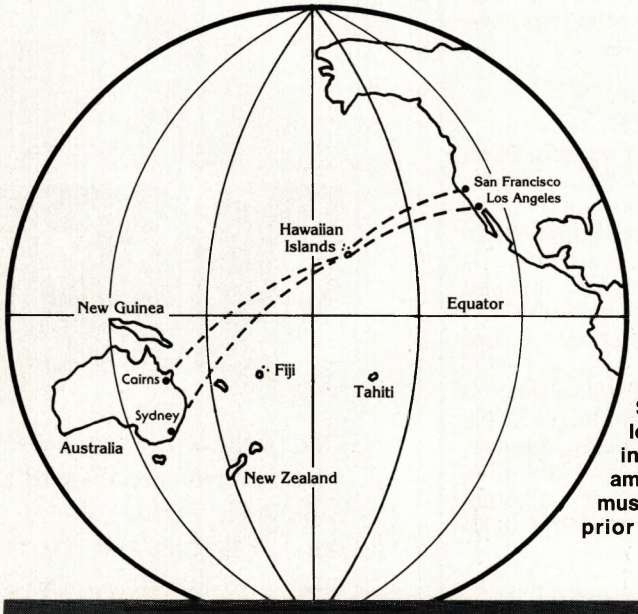
The fare will be in effect from April 1 to September 30 this year. Tickets can be purchased through a travel agent or from Qantas direct. West Coast departure cities for Qantas include Los Angeles and San Francisco.

These special tickets must be purchased 14 days in advance. The trip must last at least six days but not more than 60. No enroute stopovers are permitted. Once tickets are purchased, there are penalties for cancellations or reticketing for another date.

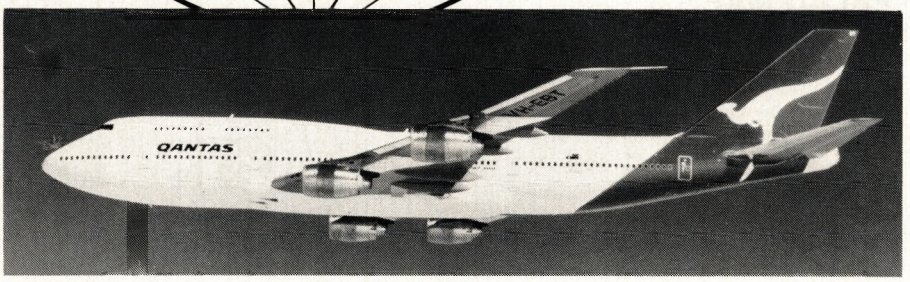
There are a limited number of these special $896 tickets available per flight. So, it would be wise to make your booking early.

The $896 fare can be used in conjunction with Qantas' current program of half price fares for children less than 21 years old. Travel mileage bonus points can be earned on the American Airlines AAdvantage Program. Qantas is a participating member of this frequent flyer program.

Qantas officials wish to make it clear the new bargain fare is not a no-frills operation. Seats are in the economy section of a 747 jumbo jet aircraft. Passengers receive all of the usual in-flight amenities such as meal service, complimentary beverages and first run movies. According to Patrick Clark, vice-president of passenger sales, "The new promotional fare is an extension of Australia's desire to welcome North American visitors to the Wonder Down Under."



Qantas flies 747 jumbo jets to Australia from both Los Angeles and San Francisco. Special low fares are available that include the usual in-flight amenities, but such tickets must be purchased 14 days prior to the departure date.



FLIGHTS

Qantas operates two flights weekly from the West Coast to Cairns. The flights depart from either San Francisco (QF4) or Los Angeles (QF18) at 9:00 pm on Thursdays and Saturdays. There is a plane change in Honolulu with a departure (QF26) of 1:55 am. The flight arrives in Cairns at 7:10 am. The return flights from Cairns are scheduled to depart at 6:30 pm on Thursdays and Saturdays.

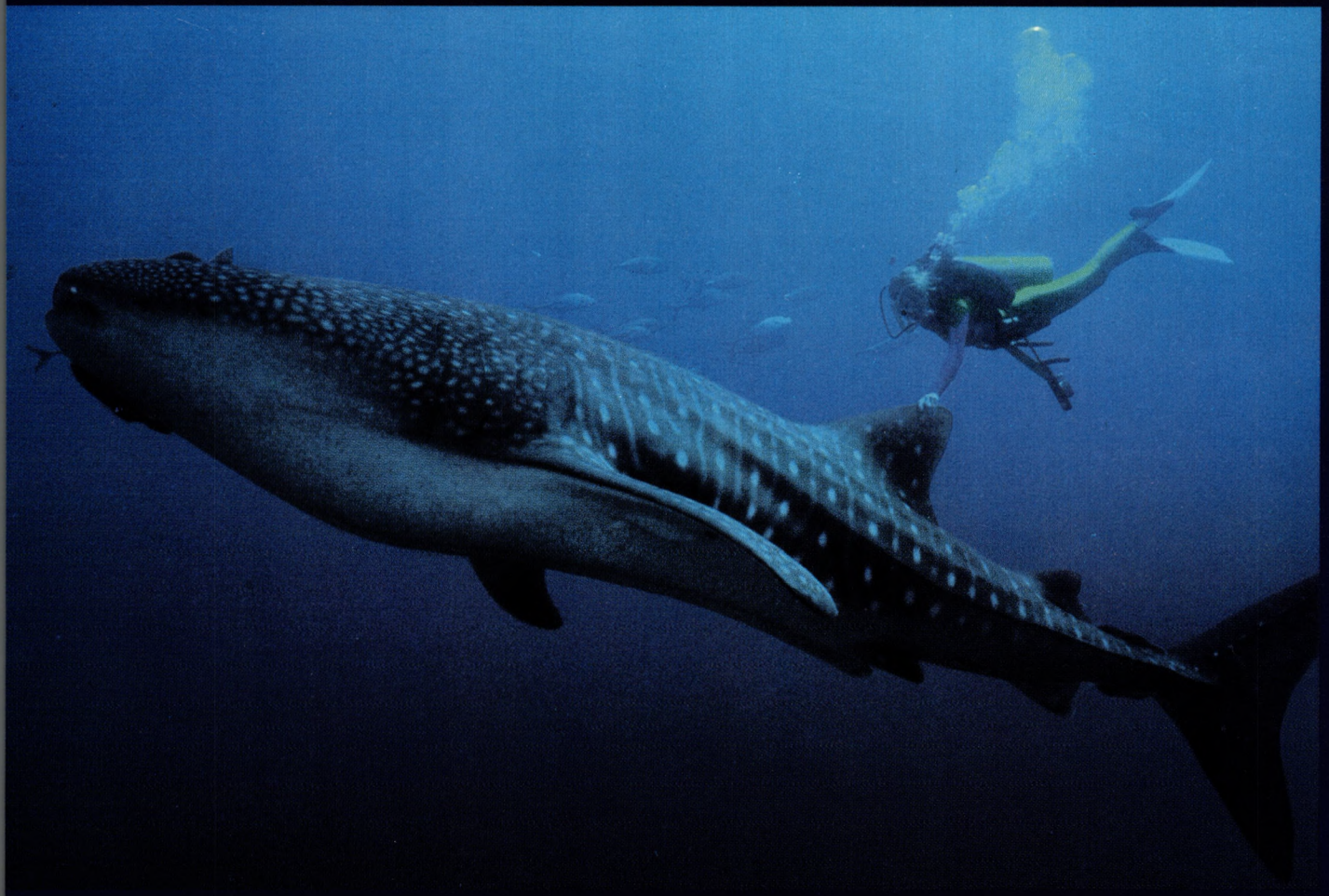
Divers planning to visit Australia must have a valid passport and apply for an Australian visitor visa. Applications can be obtained from the Australian Consulate-General offices in New York, Chicago, San Francisco, Los Angeles or Washington, D.C.

In addition to Cairns, Qantas offers daily flights to Sydney, Brisbane and Melbourne. Qantas operates one of the largest fleets of 747 jumbo jets in the world and offers more flights to Australia than any other airline. A copy of its time table can be obtained by calling the airline.

FOR MORE INFORMATION

Qantas	(800) 227-4500
Dive In Australia	(415) 421-5588
La Mer Diving Seafari	(800) 348-3669
in New York	(212) 559-0886
Poseidon Ventures	(800) 854-9334
in California	(714) 644-5344
Sea Safaris	(800) 821-6670
in California	(213) 546-2464
See & Sea Travel	(800) 348-9778
in California	(415) 434-3400
Tropical Adventures	(800) 247-3483
in Washington	(206) 441-3483

Dive with the big boys.



There's not a fish in the ocean bigger than the whale shark. And there aren't many places in the world where you can get this close to one. In Loreto, you'll get your chance.

Loreto, on Mexico's Baja coast, is your gateway to one of the world's most awesome marine wilderness areas. The Sea of Cortez is home to grey and fin-back whales, sea lions, manta rays, dolphins and hammerheads.

Loreto has something for every diver. Isolated coral coves. Pinnacle rocks and submarine peaks. Sheer walls that plunge to depths of over 100 feet.

Loreto offers complete diving services and facilities. Dive shops, rental equipment, airfills, PADI certification courses, and dive tours with experienced guides.

Even on dry land, Loreto has plenty to offer. Like a range of fine hotels. A world-class tennis center. Even a few Spanish missions.

FANTASIA DIVERS Call toll free 1-800-336-DIVE (in Texas 713-558-9524) for complete diving tours and packages.

In Mexico, they say everything's bigger in the Baja. When you dive in Loreto, you'll know what they mean.

© 1987 FONATUR, Mexico Tourism. Another resort from Fonatur, the planners and developers of Cancún, Ixtapa and Los Cabos.

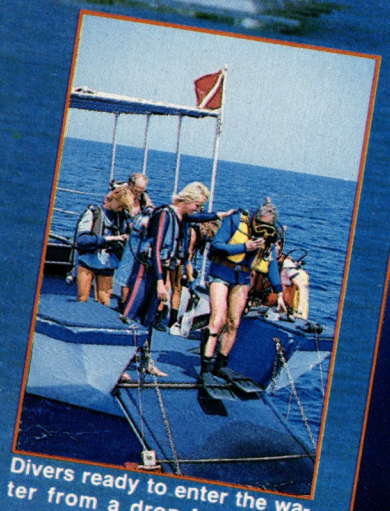


LORETO

WHERE EVEN THE MOUNTAINS SWIM.

HOLIDAY INN GRAND CAYMAN

Launches Its 1987 Guaranteed Diving Program



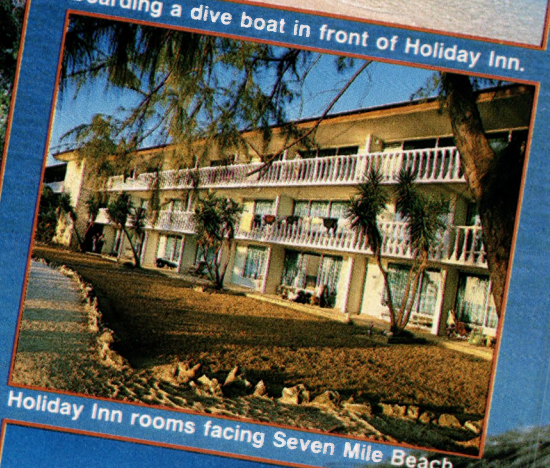
Divers ready to enter the water from a drop-front boat.



A colorful wall off Seven Mile Beach.



Boarding a dive boat in front of Holiday Inn.



Holiday Inn rooms facing Seven Mile Beach.



Northwest flies daily to Grand Cayman.



TEXT AND PHOTOGRAPHY BY GERI MURPHY

April 21 is a red letter day for Grand Cayman's Holiday Inn. The beginning of the fifth annual Guaranteed Dive Vacation program, it holds the same kind of promise and excitement as the opening day of the trout season holds for fishermen. A lot of divers have been waiting months for this program to start.

The rules for this event are simple and straightforward. Once a diver has signed up for this vacation package, he or she is guaranteed a room at the resort, a place on the dive boat and that the dive boat will run every day of his/her vacation package. If any one of these three promises are broken, the customer gets the entire vacation for free!

Sound too good to be true? Not at all. There are no surprises, no hidden clauses and no excuses. The people at the Holiday Inn are so confident of their services they can make this offer with no strings attached. They have been doing it four years.

How do they do it? Very carefully, you can bet. This resort is one of the few in the world that can offer such a guarantee because of a special blend of location, weather, an organized reservation service and a well run diving operation.

LOCATION

Some millionaire once said, "The four secrets to a successful business are: location, location, location and location." In the case of the Holiday Inn, this is certainly true. To begin with, this marvelous resort complex is in the Cayman Islands, one of the top three resort diving destinations in the Caribbean. The coral reefs



Curaçao
WE HAVE A STYLE ALL OUR OWN



Curaçao
WE HAVE A STYLE ALL OUR OWN



Curaçao
WE HAVE A STYLE ALL OUR OWN



Curaçao
WE HAVE A STYLE ALL OUR OWN



Curaçao
WE HAVE A STYLE ALL OUR OWN

The Underwater Park of Curaçao – over 12 miles of pristine sites ... a coral reef sanctuary created just for you and a few million species of marine life.

Take the Plunge! Everything you ever wanted in a Caribbean dive vacation and more.

See your travel agent or contact:

The Curaçao Tourist Board
400 Madison Avenue
Suite 311
New York, New York 10017
(212) 751-8266

HOLIDAY INN

and vertical walls here are world renowned. Underwater, visibility exceeds 100 feet and temperatures range from 80 to 82°F. These islands offer exciting and beautiful encounters with spotted eagle rays, giant sponges, schools of tarpon and a dozen more undersea phenomena. You couldn't pick a better place for an all-star beach resort that caters to divers.

The second location advantage is the resort itself is right smack in the middle of the spectacular Seven Mile Beach. This area is on the western side of Grand Cayman, where the ocean is sheltered from the Caribbean trade winds and the surface is often glassy calm. Here, diving conditions are the gentlest and safest. Protected from winds and rough weather, the Seven Mile Beach area offers year-round diving and near perfect weather.

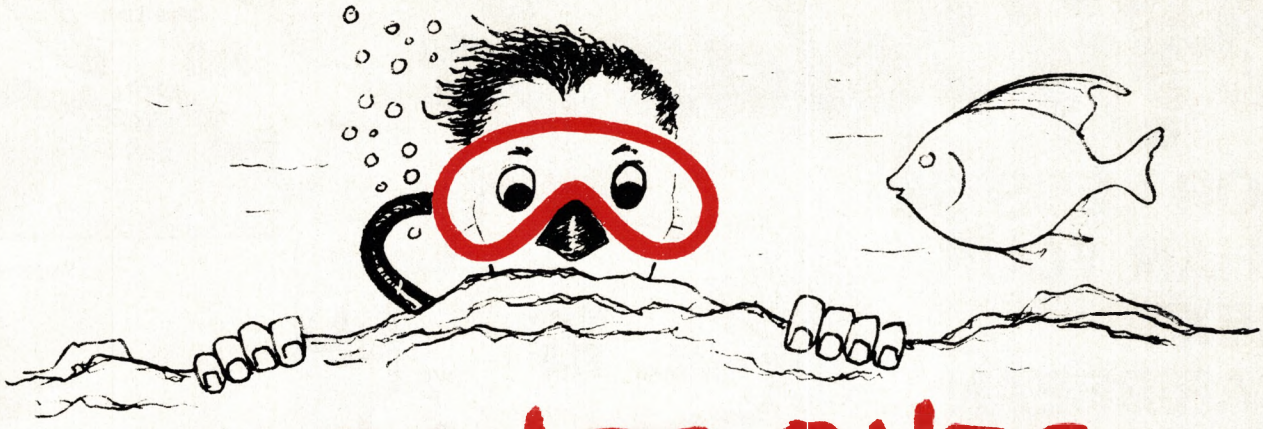
The third location advantage is the Holiday Inn is on the beach. Guests step out of their rooms right onto the beach and are confronted with a most remarkable sight: The dive boats pull up onto the same beach to load. A full service dive shop is on the premises and the shop staff members are in constant radio communication with all of their boats. Everything is so convenient. There are only a few steps among the rooms, dining area, dive shop and boats. And, nondiving members of the family are offered a marvelous choice of resort facilities and activities including: freshwater swimming pool, a wide beach for sunbathing, waterskiing, sailing, Jet Ski rides and at least a dozen other sports.

The fourth and most important location advantage is the Holiday Inn is strategically close to no less than 25 of Grand Cayman's best known dive sites. For example, the wreck of the *Oro Verde* is straight out from the Holiday Inn Beach, less than a four minute boat ride. In the same area are such sites as Paradise Reef, Holiday Inn Reef, Sand Chute, Three Trees, Peter's Reef and Aquarium. A short distance to the north are such spectacular wall dives as Trinity Caves, Big Tunnel, Orange Canyon, Sentinel Rock, Big Dipper and Northwest Point. To the south are a number of excellent photography sites such as Royal Palms Ledge, Soto's Reef and the *Balboa* Wreck—just to name a few. Boat rides are delightfully short.

WEATHER

While location is important there are other factors critical to the success of the Guaranteed Diving Program. One of them is obviously weather and this is where Grand Cayman excels. This island is right in the center of the western Caribbean, 480 miles south of Miami. It is far enough

(Continued on Page 88)



OCEAN QUEST WAS HERE!

The Sign of Adventures To Come

Remember, "Kilroy was here," the mark of the phantom GI who got there well ahead of the crowd? Well, Ocean Quest's 414-foot dive/cruise ship will take you to the best dive sites in the Western Caribbean—Columbia, Santa Rosa, Lighthouse, Glover, the Blue Hole, and many of our own "secret" reefs . . . well ahead of the crowd!

Experience the adventures of diving from our custom dive boats (we've got 8 of 'em on board). And your non-diving companions will have their own adventures on our unique shore excursions and island explorations. You'll all enjoy our large staterooms, gourmet dining, and superb service. Then, fill your evenings with non-stop action—live entertainment in our lounge, dancing 'til dawn in the disco, and playing the odds in our casino.

Come aboard and be part of the newest concept in diving—the Dive/Cruise Vacation. Beginning this spring, we will depart New Orleans every Saturday.

Call us today to get there ahead of the crowd.

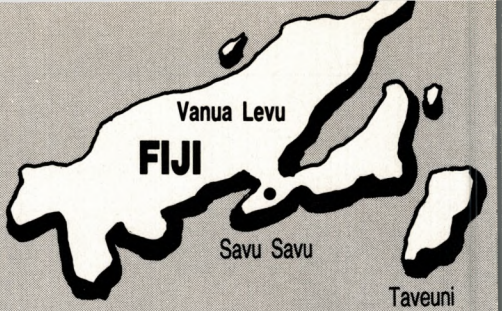
OCEAN QUEST
INTERNATIONAL
THE DIVE / CRUISE COMPANY

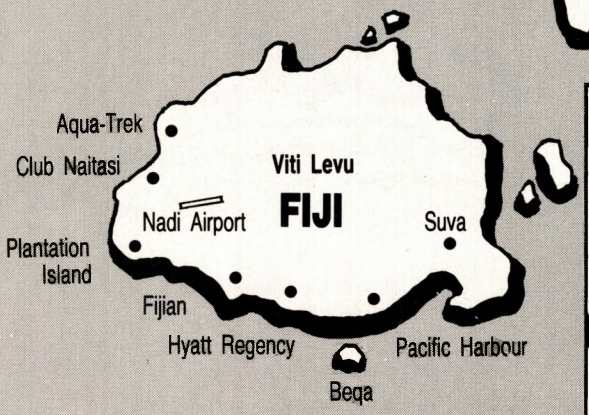
P.O. Box 8592, Mandeville, LA 70448 • In Louisiana, Call 504-626-5922

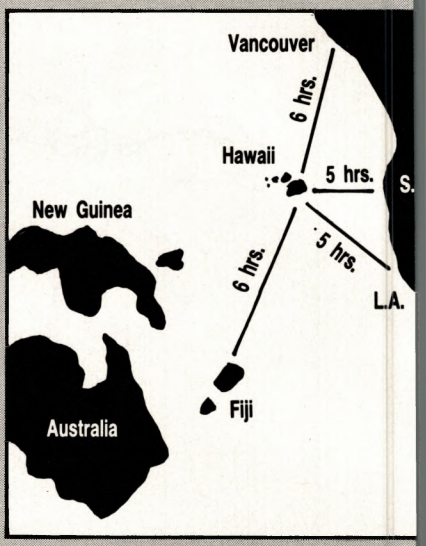
1-800-338-DIVE

DIVE CONTINENTAL'S Fiji Islands

FOR LESS $$ THAN YOUR NEXT CARIBBEAN DIVE VACATION







FROM **$595** **Round Trip Airfare (West Coast departure)**

FIJI—Nestled in the heart of the South Pacific. Dramatic walls, spectacular soft corals and unique hard corals and fish. Professional dive operators. An unbeatable diving combination.

TOPSIDE—Choose from small, dedicated dive resorts to full service luxury hotels (at a fraction of their cost in Hawaii or the Caribbean). The exquisite natural beauty of FIJI and the spectacular hospitality of the FIJIAN people round out an incredible vacation.

Continental Airlines proudly announces its super new fares that make FIJI *THE DIVERS' CHOICE* for a vacation in 1987.

To answer all your questions and book your vacation, call the diving specialists at CONTINENTAL PACIFIC VACATIONS. Trained divers will make your next dive vacation the most exciting of your life!

For less $$ than your next Caribbean dive vacation, call 1-800-525-2560 (U.S.); 1-800-252-2560 (CA); 1-800-225-4834 (Canada).

AQUA·TREK



Photo by Les Fields

Dive the Malolo Barrier Reef with Aqua-Trek—Ocean Sports Adventures. Based on idyllic Plantation Island (Malolailai), Aqua-Trek serves divers from Club Naitasi (Malolo) and the Regent of Fiji via Fly-Dive arrangements with Sunflower Airlines.

$585 (low season) **includes tanks, weights, all transfers, 7 nights accom. Plantation Island Resort, 5 days of 2 tank boat dives**

"The Duke" is our 6.8 meter custom designed dive boat . . . running at 30 knots with 10 divers to sites like "Supermarket," the Pinnacle, Malolo trenches and many more. Complete instructional programs are available (PADI) and we can offer diving to suit any level of experience and any diver's desire.

AQUA·TREK
Ocean Sports Adventures

FOR INFO AND BOOKING, CALL TOLL FREE

1-800-525-2560 (U.S.)

1-800-252-2560 (CA) • 1-800-225-4834 (Canada)

The FIJIAN



Enjoy the spectacular Golden Reef from the elegance of the Fijian Resort. Located on Yanuca Island, the Fijian is 105 acres of world class accommodation in a secluded setting. Just minutes from your room are the wonders of Golden Reef, offering a full range of dives—from beginner experiences to advanced sizzling action on 200 foot walls.

$729 includes tanks, weights, all transfers, 7 nights accom. Fijian, 5 days of 2 tank boat dives

DIVE FIJI'S CORAL COAST

The Fijian offers world class diving and world class accom., just 45 mins. from Nadi airport.

PACIFIC HARBOUR RESORT



Home of BEQA DIVERS—Fiji's most experienced dive operators. Seven days on Fiji's Coral Coast and five days diving in the fabled Beqa Lagoon is yours: Dive the Soft Coral Grotto, Side Streets, Coral Gardens, Frigate and Cutter Passages. Visit Pacific Harbour's Fijian Cultural Centre & see Fiji's heritage. A unique experience—even in Fiji!

$579 includes tanks, weights, all transfers, 7 nights accom. Pacific Harbour Resort, 5 days of 2 tank boat dives.

BEQA DIVERS FIJI

BEQA DIVERS FIJI
GPO Box 777, Suva, Fiji
Phone 361088 (country code 679)
17 years' experience in Fiji Diving.

WITHOUT A DOUBT

FIJI'S BEST DIVING

THE NORTHERN GROUP

TAVEUNI
QAMEA
NAMALE

Contact our U.S. Representative direct:

TROPICAL ADVENTURES

The Leader in Fiji Diving Since 1978

1-800-247-3483

WA State (206) 441-3483
170 Denny Way Seattle, WA 98109

HYATT REGENCY FIJI



Dive Fiji in luxury at the Hyatt Regency Fiji. Experience Morgan's Wall and Hub's Discovery—100 foot walls of multi-colored soft corals and gorgonian fans—then relax on Hyatt's 25 acre setting.

$635 includes tanks, weights, all transfers, 7 nights accom. Hyatt, 5 days/2 tank boat dives

$889 Includes 4 nights accom. Hyatt Regency, 3 days of 2 tank boat dives, *plus 3 nights accom. Plantation Island Resort & 2 days of 2 tank boat dives*

DIVE FIJI'S CORAL COAST

With 250 delightfully furnished rooms, 4 restaurants, 4 bars, complete sports complex and white sandy beach, diving the Hyatt is an experience of a lifetime.

CONTINENTAL PACIFIC VACATIONS

10351 SANTA MONICA BLVD., SUITE 309, WEST LOS ANGELES, CA 90025

213/277/0772

HOLIDAY INN

(Continued from Page 84)

away from any large land mass that might cause thunderstorms. The weather is balmy and the winds, gentle, year-round. Some describe it as 80/80—both the water and air are 80°F.

The Holiday Inn is able to offer the Guaranteed Dive Program because it has better house odds than Las Vegas. Ron Kipp, president of Bob Soto's Diving, reports he ran his dive boats continually for more than 1,000 days before encountering a day so bad they could not go out. The nice thing about this bet is that everyone wins. Being assured of diving every day is every dive traveler's dream.

DIVE SERVICES

Another key factor in the Holiday Inn program is the well organized services and extensive facilities of the dive operator. Bob Soto's Diving Limited is the largest and longest established dive operation in the Caribbean, if not the world. It operates a fleet of seven boats and has a staff of 30 skippers, divemasters, instructors and compressor technicians.

There is sufficient equipment and manpower to guarantee the boat will be on the beach ready to take you diving every day of your vacation. If a boat breaks down, another one is put in its place immediately. If a divemaster has an ear infection, another is scheduled to lead the dive. Every trip departs on time and operates with a high degree of safety.

The Bob Soto's fleet of dive boats contains vessels of all shapes and sizes. Some of the most interesting are designed with drop-front ramps for easy loading on the Holiday Inn beach. While several of the vessels are large, the Bob Soto's management limits the number of divers per boat to 20.

This year's Guaranteed Dive program offers new options for those seeking a more advanced level. For a few dollars more guests can upgrade their dive packages to include either a double wall dive with an Edge decompression meter, or a direct North Wall dive that departs from Governor's Harbour.

GUARANTEED PROGRAM

Now that we have discussed why the Guaranteed Dive Program works, let's talk about how it works. The program is in effect from April 21 to December 15. More than 8,000 satisfied divers have enjoyed it since 1980. In all that time the Holiday Inn and Bob Soto's have only had to make refunds to four divers. That is quite a record! Furthermore, 98.8 percent of all the guests have rated the diving as "good or excellent."

Guests are offered a choice of three different length vacation packages. For example, the seven night package includes seven nights at the hotel (double occupancy room), full breakfast daily, six morning two tank dives, unlimited shore diving (8:00 am to 5:00 pm), a Bob Soto's T-shirt, one night dive and a few hotel extras. The package is $529 per person.

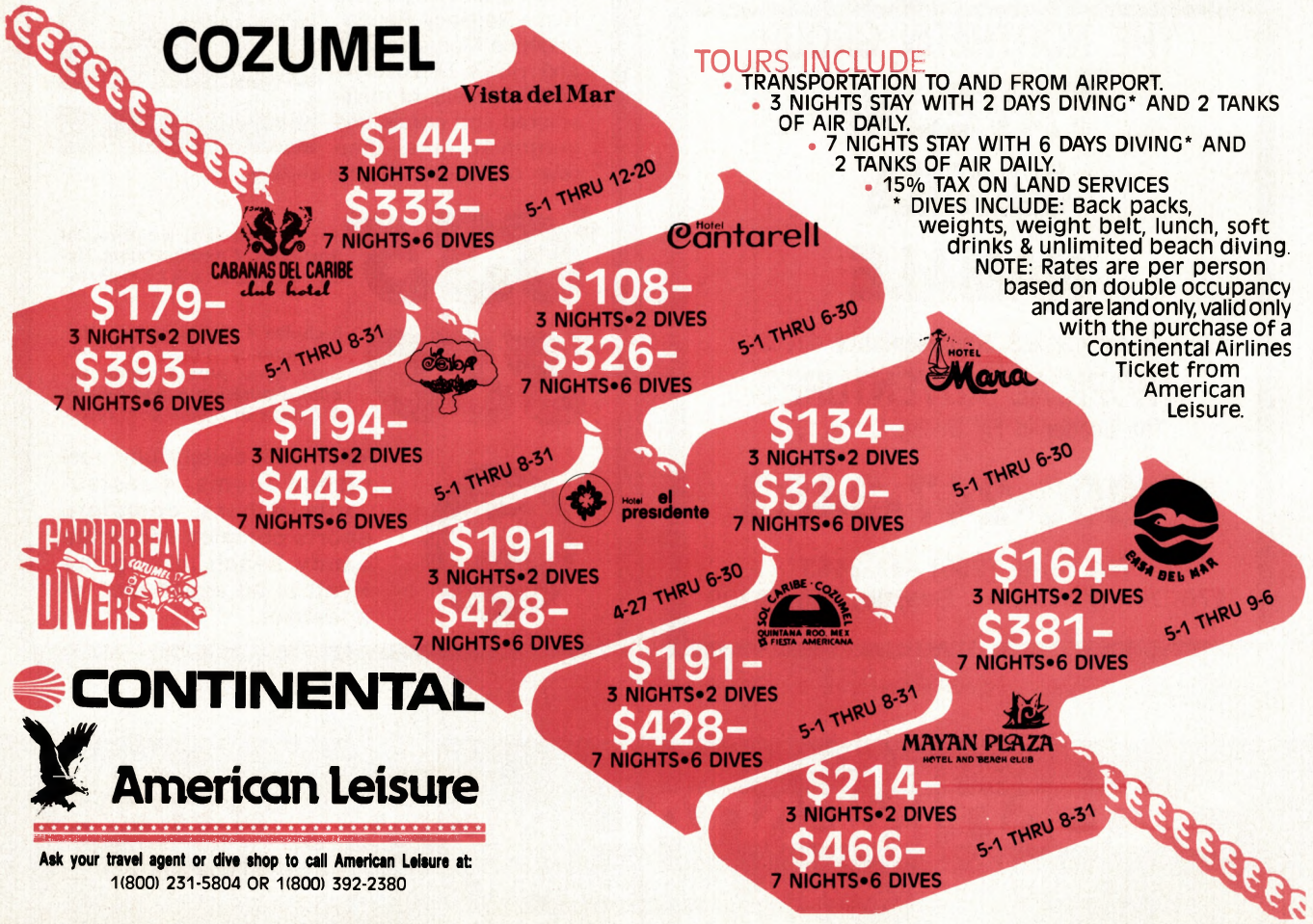
Probably the most popular package is the five night program for $399. It includes all the features of the seven night package except the diving consists of four morning two tank dives instead of six. There is also a three night package for $219 that includes two morning two tank dives. As you can see there is a great deal of flexibility in the program. There is also special pricing for single rooms, triples and quads. All of the rules and features of this program are clearly spelled out in a Holiday Inn brochure.

For information or reservations you simply call a U.S. toll free number: (800) 421-9999. This connects you to the reservations office at the headquarters of Holiday Inn Grand Cayman, 5100 Poplar Avenue, Suite 2219, Memphis, TN 38137. The reservations people are very knowledgeable about the diving program and the facilities/services at this resort.

HOW TO GET THERE

This year Holiday Inn has joined forces

(Continued on Page 92)



D • I • S • C • O • V • E • R

LUCAYA

GRAND BAHAMA ISLAND



Lucayan Beach Resort and Casino
247 luxurious waterview rooms
4 fine restaurants and lounges
150 slip marina
Flamingo Showcase Theatre



The New Atlantik Beach Hotel
175 rooms including
52 tri-level oceanfront suites
3 fine restaurants



Holiday Inn
505 rooms - 31 oceanfront with
private balconies, 2 suites.
6 restaurants and lounges.
Nightclub/Disco

The World's Finest Dive Resort Opens

In 1965, that was the announcement. The dive operation was the Underwater Explorers Society, UNEXSO. It has become a legend, located in Lucaya, Grand Bahama Island. In 1987 Lucaya has become a destination of its own. Earlier visitors are returning for a pleasant surprise. What do the authorities say today?

"UNEXSO is the most sophisticated and best equipped diving facility in The Bahamas: and in fact, the world."

– Paul Tzimoulis, publisher, *Skin Diver Magazine.*



Lucaya is located on 2 miles of the finest white coral sand beach on Grand Bahama Island and has a choice of quality hotels and great diving packages. No other Caribbean destination has a luxurious 20,000 square foot casino like the Lucayan Beach Resort & Casino, right on the beach. Opening in 1987, is Port Lucaya, a five acre shopping and entertainment complex with marina and 75 "international" shops and restaurants.

The #1 dive destination. Year after year that is how *Skin Diver* readers rate The Bahamas. Water clarity, marine life, comfort and convenience.

As an introduction to the new Lucaya, UNEXSO will give you a certificate for a FREE DIVE if you call or write in reference to this ad. The free dive certificate is non-transferable, is good for one year and limited to one per customer.

Dive package rates start from $149 per person double occupancy.
For Dive Package Information and Reservations Call Toll Free 1-800-992-DIVE.
Florida (305) 761-7679 • Bahamas (809) 373-1244 or write: P.O. Box 5608, Ft. Lauderdale, Florida 33310

LUCAYAN BEACH RESORT & CASINO
LUCAYA, GRAND BAHAMA, THE BAHAMAS
A GENTING INTERNATIONAL RESORT & CASINO

Atlantik Beach Hotel

UNDERWATER EXPLORERS SOCIETY
UNEXSO

Holiday Inn
Freeport/Lucaya Beach Resort

LUCAYAN MARINA HOTEL & SPA
LUCAYA, GRAND BAHAMA, THE BAHAMAS
A GENTING INTERNATIONAL RESORT & CASINO

It's Better In The Bahamas.

ADVANCED TRAVEL

SEA DANCER

Peter Hughes' Luxury Live-Aboard In The Turks & Caicos



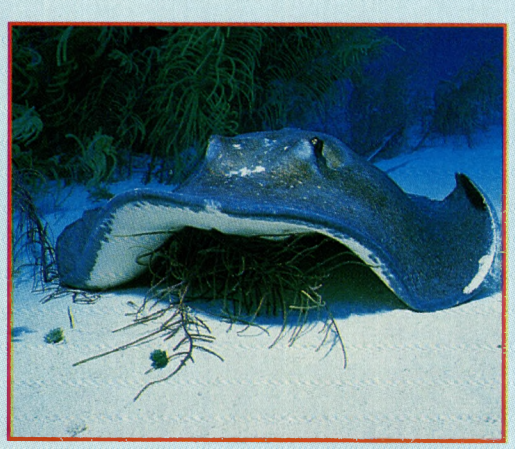
TEXT AND PHOTOGRAPHY BY BILL GLEASON

Peter Hughes is no stranger to creating dive resorts. Flamingo Beach Hotel on Bonaire, perhaps the most successful dive resort in the world, was his first. Tiara Beach, on the island of Cayman Brac, came next. Operations on Curacao and Barbados followed and a standard of diving excellence was established that remains unchallenged to this day. If it's a Peter Hughes resort, the boats are state of the art, the operation runs smoothly and the guides are professionals.

Peter's newest resort comes complete with engines, anchors, navigational equipment, captain and crew and cruises at 14 knots. Peter Hughes Diving/Divi Hotels have commissioned and launched a 100 foot live-aboard called *Sea Dancer*. Originally a boat designed to ferry crew members out to offshore oilrigs in the Gulf of Mexico, the aluminum hulled ship has been completely refitted for brand new goals: to combine the amenities of shore based resorts with the freedom of a cruising vessel and become the finest live-aboard dive boat afloat.

Our destination was the Turks and Caicos, a small island nation just southeast of the Bahamas. Geographically close to the U.S., these islands are a little more than an hour by Pan Am jet, but still an uncharted underwater frontier. I boarded *Sea Dancer* on Grand Turk, well known as the hub of diving in the Turks and Caicos chain. The only problems





The *Sea Dancer* combines the amenities of a shore based dive resort with the freedom of a cruising vessel. This freedom allows her guests to dive established sites and sites rarely visited by other divers. Top: *Sea Dancer*'s dive platform makes entries and exits easy. Above: Peter Hughes demonstrates the proper way to grab a crab. Left: A southern stingray.

with diving Grand Turk in the past ten years have been less than reliable air service and only a handful of small resorts from which to choose. Pan Am has solved the air problem, and, with five diving operations, Grand Turk is now a serious contender to become the Caribbean's newest "hot" diving destination.

Sea Dancer is a dream: One hundred feet long and 21 wide, every inch of it has been designed with diving in mind. More than one-third of the main deck is dedicated to diving. You store your gear just a few steps away from the spacious dive platform and don't move it until you depart the boat. Cameras go on a ten by five foot table, centrally located on the dive deck. Tanks are continually filled by two compressors and a large air bank; one is always ready for your use. There's a choice here. You can don your tank on the deck and enter the water there or descend either of two wide stairways to the dive platform. If you don't like walking a few steps with your tank on, there are also tanks on the dive platform. Just attach your BC and roll into the water. There are hot showers on the deck or dive platform when you return and inflatable boats for quick shore trips or exploring.

Accommodations are well designed.



The four deluxe cabins on the main deck are spacious by live-aboard standards and even feature queen sized beds along with private baths. The eight cabins below the main deck are average in size. All cabins are air-conditioned. The rooms have standard 110 volt electricity and there is a photo center and mini boutique on board as well. There's no problem charging even a lot of equipment and the boutique stocks toiletry items and a good selection of T-shirts and the like. E-6 film processing (good for Ektachrome and Fujichrome slide film) is available and conforms to the same high standards that characterize all operations on the boat.

Breakfast, lunch and dinner are all served on the top deck. Service hours are pretty flexible, so you don't have to rush to fit in any meal. The dining area is open air in good weather and enclosed if rain or wind threaten. The crew on my cruise (one of the first) turned out good meals, so don't expect to shed too many pounds on your vacation on this boat.

Only time and diver opinion will tell whether Peter Hughes has the "best" live-aboard dive boat. It's certainly competitive with anything on the market right now. The new generation of big, reasonably fast live-aboards spells great news for travelers. *Sea Dancer* has been designed for people who want to dive, dive, dive—anytime, night or day. The only restriction is that you tell the divemaster you're going in so he/she can log the information. This is advanced diving at its best. You're given a description of each site with depth and bottom time left to your discretion. The whole idea of a Peter Hughes live-aboard actually came from those who had stayed at Flamingo Beach or Tiara Beach. According to Hughes, "They kept asking me to design an operation strictly for the experienced diver, and my answer is *Sea Dancer*." No basic instruction is available on the vessel and divers are their own bosses underwater.

We spent the first few days cruising around Grand Turk. The very first dive showed *Sea Dancer*'s range. Rather than just diving the spectacular walls for which Grand Turk is famous, we traveled to a virgin site (as yet with no name) off the northern tip of the island. It is normally a choppy area, but an unexpected drop in the trade winds provided us with very calm water. Divers spotted plenty of schooling fish, one or two small sharks and abundant numbers of groupers and reef fish. This philosophy is the prime attraction of *Sea Dancer*: She will take you to places no one else can get to—and that usually translates into great diving.

The next few dives were made on Grand Turk's steep walls. Very sheer, they begin anywhere from 30 to 60 feet down and are actually undercut in some places. Advanced divers, if they don't already dive with an Edge decompression computer, will be pleased to know that units (and instruction in their use) are available for a modest rental charge on the boat. The walls of Grand Turk are spectacular, easily ranking with the best diving destinations in the Caribbean.

We next headed over to South Caicos and met with unexpectedly rough conditions. Although I had dived here before, it was not to be on this trip. One of the true advantages of live-aboard diving quickly became apparent. We just hauled anchor and headed for another site. In this case, it was North Provo Wall, one of the most consistently "wild" diving areas anywhere. The first dive turned up reports of eagle rays, sharks, tuna and first class walls, stories to be repeated each time we dived. Afterward we cruised to West Caicos, where no one had ever dived before. It was spectacular, but is tough to reach unless the weather is perfect. *Sea Dancer* will concentrate on the Grand Turk area, but may run trips to Provo and West Caicos when conditions permit.

We sampled a few West Caicos spots, where the Grand Turk Bank meets the deep ocean. Rather than spectacular walls, these sites slope gently into the depths. We named one Middle of Nowhere, since we were out of sight of land. There were masses of staghorn coral in 25 feet of water and deep valleys and caves provided plenty to explore. Without ever going deeper than 50 feet, I cruised for more than an hour, joined twice by a pair of eagle rays (the same ones, I think, but who can really tell) and surrounded by schooling fish. This bank area, from the few sites we saw, shows great promise for the future.

We finished our cruise with a trip to Salt Cay, a small Turks and Caicos island 300 people call home. *Sea Dancer* provisions out of this small island and dinner was served on shore at a romantic getaway resort called The Windmills at Salt Cay. It was a truly first class small resort and a change from our nights on board. Next day we were back in Miami before we knew it, and *Sea Dancer* was already playing host to its next group of divers. The boat will run all year, with only a couple of weeks out for planned maintenance. Peter Hughes has learned a lot about divers in his years in the land based resort business and has been successful in making *Sea Dancer* a state of the art live-aboard.

For more information about *Sea Dancer* contact Divi Hotels at (800) 367-3484 or write: Divi Hotels, 520 W. State Street, Ithaca, NY 14850; (607) 277-3484.

800 FT WALL DIVE



PHOTOS BY GERI MURPHY

...an incredible experience

- Explore the new frontiers of inner space—experience the exotic, dazzling and dramatic life forms on the Cayman Wall to 800 feet!
- Join the professional crews of our deep diving submarines on daily expeditions beyond the limits of scuba diving in complete safety.
- Our submarines are dry and at one atmosphere throughout your dive—so no previous diving experience is necessary.
- A unique opportunity for every photographer and marine enthusiast—truly a "once in a lifetime experience."
- Each trip is personalized with only two passengers and a pilot—book now to avoid disappointment.



INSET PHOTO BY COURTNEY PLATT

NOW OPERATING 2 SUBMERSIBLES
For More Information And Bookings, Contact:
RESEARCH SUBMERSIBLES LTD.
P.O. Box 1719, Grand Cayman, BWI
TEL (809) 949-3870, 949-8296
TELEX 4519 RSL-SUB CP

TRUK LAGOON
8 days
$1999.00
Includes: air, hotels, diving, transfers & tax. Call or write the Dive Expert

TRIP AND TOUR

1-800-348-0842 U.S.
1-800-843-8956 CA
1-800-527-5228 Canada

DIVE ALL DAY WITH SUPER SNORKEL



Enjoy real diving freedom with an unlimited air supply! It's compact and lightweight. You can take it to your favorite dive spots.

See your dealer or:
INNOVATIVE DESIGNS INC.
1870 Oak Creek Dr., Dunedin, FL 33528
(813) 784-5349

HOLIDAY INN

(Continued from Page 88)

with Northwest Airlines to offer convenient flight service to the island from more than 40 states in the U.S. Northwest acquired Republic Airlines in August 1986 and has since increased the number of flights by 33 percent and expanded the air route network substantially.

While most scheduled airline flights to Grand Cayman depart from either Miami or Houston, Northwest instituted new nonstop daily flights from Memphis. Regarded as one of Northwest's hub cities, the Memphis connection allows traveling divers to hook up with 62 cities throughout the U.S.

Northwest also operates two nonstop jet flights daily from Miami to Grand Cayman, as well as nonstop service between Memphis and Miami. Northwest is the nation's fifth largest airline and America's second oldest carrier. Based in Minneapolis, Northwest started flying mail to Chicago in 1926. It now operates 311 aircraft and serves 221 cities in 19 different countries. For more information or reservations, call Northwest at (800) 447-4747.

ECSDA UNDERWATER TREASURE HUNT

The Eastern Caribbean Safe Diving Association, based on the Caribbean island of Barbados, West Indies, will host its third annual Treasure Hunt Scuba Dive April 5. The event is held to raise funds to help in the operation of the decompression chamber on the island and to meet objectives to promote safe diving in the Eastern Caribbean.

In addition to the Treasure Hunt Dive the association will host a marine art exhibition with the release of limited edition marine prints by artist Katie Shears of Seahorse Studios, Antigua, West Indies. Proceeds from the sale of the prints will also go toward the decompression chamber effort.

For information contact ECSDA president Martha Watkins Gilkes, c/o Capt. Gilkes, LIAT, V.C. Bird Int. Airport, Antigua, West Indies.

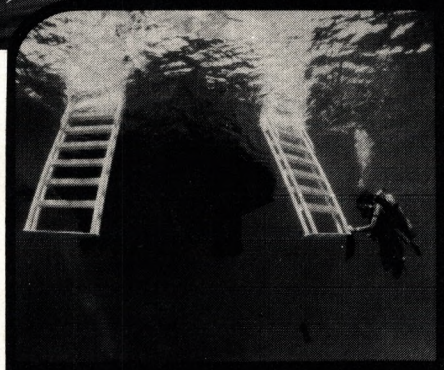
SUFFOLK U. PHOTO COURSE

Suffolk University of Boston, Massachusetts is offering a summer course in Underwater Photography, June 22-27. It is open to all certified divers 18 years of age or older. There are no other educational or experience requirements. The course will be conducted at the field station in Edmunds, Maine on the shores of the Bay of Fundy.

For a complete free information packet contact Gerald F. Comeau at Suffolk University, Department of Biology, Beacon Hill, Boston, MA 02114.

Cayman's Fastest Dive Hotel





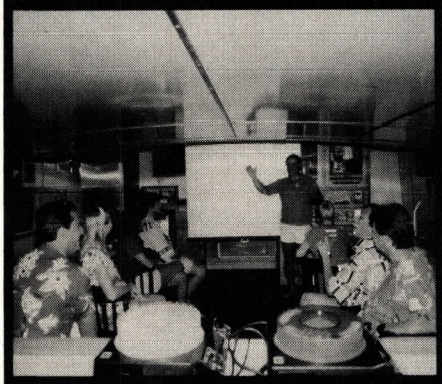
Dive ladders



Sun deck



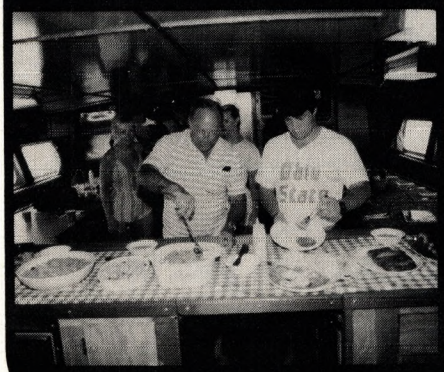
Dive deck



Slide shows



Personal dive lockers



Lunch buffet



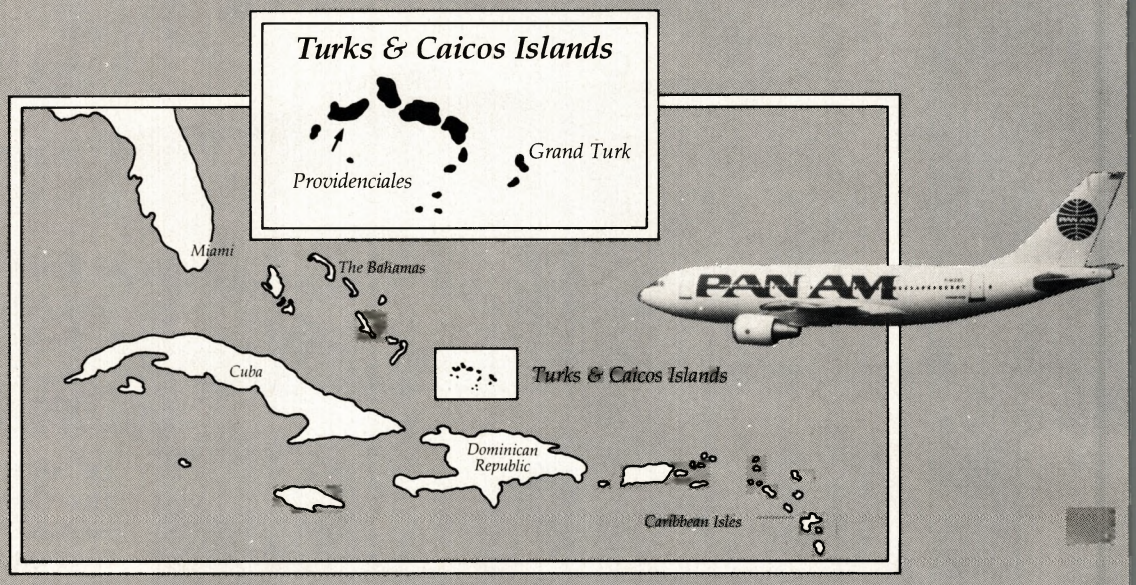
Private cabins

Of all the dive hotels in the Caymans, the CAYMAN AGGRESSOR is the fastest. It cruises at 15 knots and can run the entire 20 mile length of the North Wall in less than 2 hours.
CAYMAN AGGRESSOR is a floating hotel which offers all of the amenities of those slower hotels: a sundeck patio, a full service bar, air-conditioned private rooms, U/W photo shop, film processing lab, mini movie theater, dive boutique, banquet dining hall, and of course a fabulous ocean view.
Besides being fast, our hotel goes to the very best dive sites around the island. We'll show you vertical walls which are unknown and untouched by others. For more information, brochures, and reservations call:

1-800-348-2628
(504-385-2092)
Aggressor Fleet, Limited
P.O. Drawer K
Morgan City, LA 70381
or
1-800-348-9778
(415-434-3400)
See & Sea Travel Service
50 Francisco St., Suite 205
San Francisco, CA 94133

TURKS &

A world of virgin reefs, brilliant marine life, Mantas, Eagle Rays and fabulous dropoffs... the last unspoiled diving in the Caribbean.



For more information, contact the
TURKS & CAICOS TOURIST BOARD
121 S.E. 1st Street • Suite 510 • Miami, Florida 33131
305-577-0133 • 800-441-4419

If you're looking for the best, Dive Grand Turk with Turks Island Aquasports at Pillory Beach

TURKS ISLAND AQUASPORTS LTD

Mike Spillar, the most experienced dive operator on Grand Turk, proudly announces the opening of Turks Island Aquasports at Pillory Beach, offering the best of everything!

- Mike's Expertise
- Incredible Reef and Marine Life
- Brand New Equipment
- Two Dive Boats
- Grand Turk's newest and most luxurious Beachfront Accommodations Available

For our reasonably priced Dive Packages, contact

SCUBA WORLD (212) 496-6983
167 West 72nd Street • New York, New York 10023

PREMIERE: SEA DANCER
The Newest Live-Aboard in the Caribbean makes its Debut!

Now, for the first time, enjoy your own private cabin aboard this luxurious 110 Ft. Live-Aboard, and DIVE Grand Turk, Provo, and the "secret" sites of North, West, and South Caicos.

Your host is Peter Hughes Diving.

His systems of excellence that have made Flamingo Beach Hotel and the Tiara Beach two of the most successful dive resorts in the world is now available on this luxurious floating hotel.

ONE WEEK DIVE
PACKAGE PRICE: $995.00

FOR MORE INFORMATION CALL: 1-800-367-DIVI

CAICOS

Omega Divers & Hotel Kittina On Grand Turk

OMEGA DIVERS
THE ADVENTURE BEGINS



Omega Divers & Hotel Kittina
The Very Best of Everything
for information or to book your Adventure
Call **1-800-843-7544**
in Fla. call collect 305-385-0779

Erebus & Provo Turtle Divers

EREBUS

Overlooking Turtle Cove Bay next to Provo Turtle Divers.
French restaurant and unique lounge atop a romantic hillside.
Recompression chamber available.
Tennis court and swimming pool available.

3 Night/4 Dive Pkg. 2/2 Tank Dives **$270.00 pp, dbl. occ.**
7 Night/10 Dive Pkg. 5/2 Tank Dives **$562.00 pp, dbl. occ.**

Diving Packages Include: room, breakfast, diving tank, wt. belt, BP, boat ride included, rental equipment also available.

Provo Turtle Divers, Ltd. *A full service sanctioned PADI training facility.*

For Bookings: EREBUS HOTEL • P.O. Box 8577
Ft. Lauderdale, FL 33310-8577
809-946-4240 • Telex (02968) 8436 Erebus TQ
PROVO TURTLE DIVERS • 809-946-4232

Island Princess & Provo Turtle Divers

Discover The Island Princess... Before The Rest Of The World Does!

ISLAND PRINCESS

Tropical 80 room hotel with excellent restaurant and bar.
Complete watersports activities.
Only hotel located DIRECTLY ON THE BEACH.

DIVE PACKAGES INCLUDE: Airport transfers to/from resort • hotel—all meals • bed tax-gratuities • welcome drink & orientation • maid service • diving includes: tank, air BP, weight, guide.

Provo Turtle Divers, Ltd. *A full service sanctioned PADI training facility.*

For Reservations: ISLAND PRINCESS • Box 52-6002 • Miami, FL
Turks & Caicos Phone: 809-946-4260 • Telex: 8432 PRINCES T.Q.
PROVO TURTLE DIVER: 809-946-4232

Hotel Kittina & Omega Diving

HOTEL KITTINA

Diving at your doorstep!
Luxurious rooms on the beach only steps away from your boat pick up. Restaurant, bar, pool, complete watersports.

SUPERIOR COURTYARD
3 Night/4 Dive Pkg. 2/2 Tank Dives **$207.00 pp, dbl. occ.**
7 Night/10 Dive Pkg. 5/2 Tank Dives, 1 Night Dive **$520.00 pp, dbl. occ.**

DELUXE BEACHFRONT ROOMS
3 Night/4 Dive Pkg. 2/2 Tank Dives **$259.00 pp, dbl. occ.**
7 Night/10 Dive Pkg. 5/2 Tank Dives, 1 Night Dive **$642.00 pp, dbl. occ.**

PACKAGE INCLUDES: room, transfers, gov't tax, gratuity, welcome drink, managers cocktail party, unlimited beach diving, tank, wt. belt, boat ride and guide.

Diving is provided by: **Omega Diving of Grand Turk**

For Bookings: THE TURKS & CAICOS RESERVATION CENTER
4197 Braganza Ave. • Coconut Grove, FL 33133 • 305-667-0966
HOTEL KITTINA • Grand Turk Island
Turks & Caicos, BWI • 809-946-2232 1-800-843-7544

Salt Raker Inn & Blue Water Divers


SALT RAKER INN

DIVE THE SPECTACULAR GRAND TURK WALL
from your doorstep at the Salt Raker Inn.

5/nights/8 dives-sgl.-$450pp, dbl.-$419pp, trpl.-$368pp
7/nights/12 dives-sgl.-$650pp, dbl.-$606pp, trpl.-$533pp

The Salt Raker Inn is the perfect combination of luxury and casual island comfort, all set in a lush tropical garden directly on the beach. Blue Water Divers offers personalized service in small groups of 10 or less. We put the "Sport" back in diving!! Package includes: tanks, backpack, wt. belt, boat ride, guide service, and welcome cocktail. **Direct Bookings receive 20% discount!!!**

For Bookings: 809-946-2260 SALT RAKER INN
809-946-2432 BLUE WATER DIVERS
P.O. Box 124, Grand Turk, Turks & Caicos, BWI

Blue Water Divers

Columbus House

COLUMBUS HOUSE (Ocean View Hotel)

"THEY SAY,"
He Can't Last With
Lower Than Competitive Rates.
We Are Still;
The Best Bet and Best Rates!!

EVERYONE, Agencies, Tourist Groups, etc.
Keep Calling
809-946-2517

COLUMBUS HOUSE
P.O. Box 97 • Grand Turk •
Turks & Caicos Islands, BWI

Bye-Coastal Tours



One phone call will give you the fullest information and assistance to ensure the diving experience of a lifetime!

- 11 Hotels on 3 Islands.
- Dive packages to suit all needs & groups of all sizes.
- Special discounts for medium & large groups.

Complete information from: **Bye-Coastal Tours**
P.O. Box 3126, Westville
New Haven, Ct. 06515
203-777-7390
203-773-3053

EXPERIENCE








THE ROYAL PALMS OF CAYMAN

DON FOSTER'S Dive
Grand Cayman Ltd.

"Don Foster's name is to diving what Harvard's name is to universities," Paul Tzimoulis states in Skin Diver Magazine.

Stay with us at the Royal Palms of Cayman, located directly on Seven Mile Beach. Special diving vacation packages are available beginning at $195 pp/dbl occupancy for 4 days and 3 nights, including accommodations and diving activities. Available April 21-Dec. 15, 1987.

Contact Scuba Tours, 1-800-526-1394, or (201) 256-9115 in New Jersey.

Tax and gratuity not included.

FLAMINGO BEACH PACKAGE

Starting this month, a special, all-inclusive package at the Divi Flamingo Beach Hotel on Bonaire, with direct departures from Philadelphia and Baltimore, is available. This dive vacation is for eight days/seven nights. In conjunction with Wainwright's Fling Vacations, this package includes: round trip air fare from Philadelphia or Baltimore, air-conditioned accommodations, unlimited diving, all meals, unlimited beverages and tropical cocktails, transfers, tax and service charges on room and diving, and departure tax.

Peter Hughes Dive Bonaire has two completely equipped and professionally staffed dive shops with piers, and a fleet of 12 custom designed boats to provide easy access to more than 50 dive sites. Dive Bonaire features complete dive instruction and certification courses, from resort to advanced.

The Divi Flamingo Beach Hotel offers 150 rooms overlooking the sea, two restaurants, three bars, a white sand beach, two freshwater swimming pools, spas, and the world's first barefoot casino.

Reservations and information can be obtained from recognized travel agents, dive professionals or Divi Hotels Marketing, Inc., (607) 277-3484 or toll free (800) 367-3484.

MASS. DIVERS WORLD

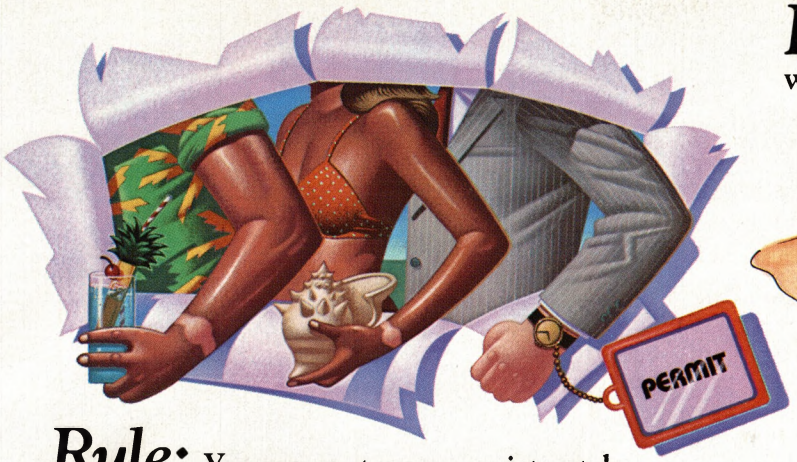
Divers World has opened its fourth unit (and first outside of Rhode Island) in the Keystone Plaza, North Dartmouth, Massachusetts.

Divers World, a division of Alpine Ski/Sports, features a complete line of diving equipment, apparel and accessories as



well as an experienced sales staff and scuba and advanced diving instruction.

The new store interior was designed by Vijay Myne Design, Inc., of Providence, Rhode Island. The firm also acted as construction manager on the project. Besides display and selling space, the design allows for backup inventory and room for dive shop repairs as well as an air filling station. There is parking for 100 cars and store hours will accommodate the late evening as well as the Sunday shopper. The store will be managed by Mark Dolby, a veteran Divers World employee who most recently was the assistant manager at the company's Newport, Rhode Island location. He will be assisted by Charlene Parent and Tim Corrigan.



Rule: You may not wear a wristwatch without a permit.

Rule: You must find a shirt you wouldn't wear in a million years.
And buy it.





Rule: You *are* permitted to hang around the water cooler.

No, we haven't been out in the sun too long.

It's just that in Florida, we see life a little differently. Here, life is to be enjoyed at your own speed, in your own way.

You'll learn lots of ways to enjoy the Florida lifestyle when you send in the coupon below. Because we'll send you our full-color, 126-page *Florida Vacation Planning Guide*.

Oh, and about the rules of life that keep you tied up in knots back home?

Forget them. In Florida, they've been overruled.

Name _____

Address _____

City _____ State/Zip _____

Mail to: Florida Division of Tourism, Visitor Inquiry Section, Dept. SD1, 126 Van Buren Street, Tallahassee, FL 32301. Allow 4-5 weeks for delivery. Or call (904) 487-1462.

FLORIDA

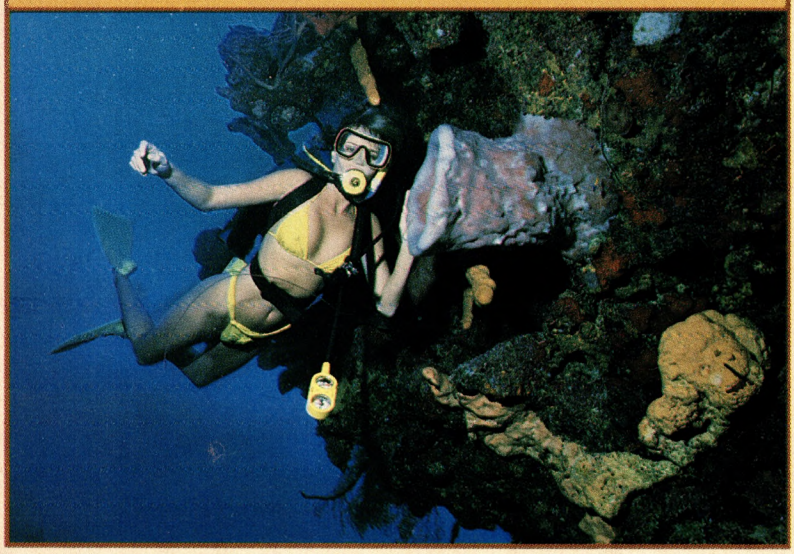
The Rules Are Different Here.℠

© 1987 Florida Department of Commerce, Division of Tourism





Top: At Sunset House, steps and slipways in the ironshore permit easy shore diving. Above: Relaxed divers receive a briefing from Sunset House divemasters at the seashore. Below: Kym Herrin pauses by a lavender vase sponge on a steep wall at Northwest Point.





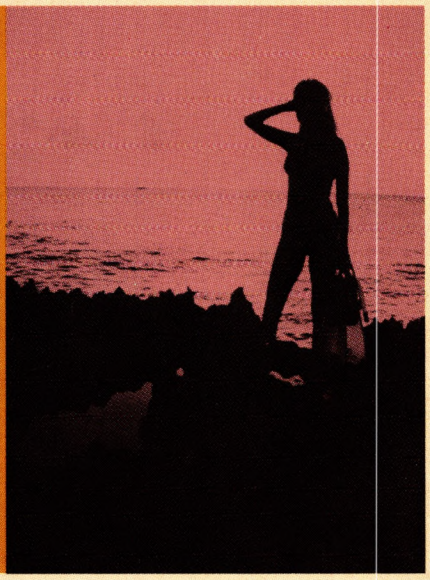
Above: Sunset House's well landscaped exterior. Below: Airy, open porches, where dive gear can dry or guests can relax, are just part of the Sunset House "home away from home" atmosphere.



SUNSET HOUSE

A Grand Cayman Favorite

TEXT AND PHOTOGRAPHY BY RICK FREHSEE



Sunrise at Sunset House. I'm snorkeling in crystalline waters at the edge of the wall. The first rays of morning sun brighten coral fingers leading to the blue-gray abyss. Even though it's early the water is warm. Low, but close on the horizon, is a wide slice of coral rock: Grand Cayman Island. At the shoreline is the Sunset House resort, nestled among stands of palms and pines.

Sunset House is a treasure within the treasure of Grand Cayman Island. What began as a small cottage/hotel in 1958 has evolved into one of the friendliest and most efficient dive resort operations found anywhere. Today, Sunset House is not a house at all but a small grouping of elongated two-story buildings of traditional/contemporary architecture set upon the craggy ironshore on the western coast of the island.

The resort offers 42 attractive, air-conditioned rooms, two waterfront apartments with kitchens, a spacious restaurant, boutique, seaside bar and dive shop. The rugged shoreline has been modified for divers and sunseekers with cement decks, slipways and steps cut into the hard limestone. Rails and ladders have been added for easy exits and entries. A large swimming/training pool has been cut just inside the ironshore with an opening to the sea.

Judged on location alone, Sunset House is very special. Shore diving is not only logistically easy, but its quality, excellent. Good, live coral exists at nearly all depths with visibility ranging from 60 to 150 feet. The highlight is the marine life in the area. Although individual animals come and go over a period of months, there is normally an assortment of sizable critters and reef fish formations accessible from shore. Day or night diving reveals schools of yellowtail snapper, huge, friendly groupers and barracudas, moray eels and more. Many of these animals have been fed by divemasters and the constant flow of visitors creates one of the Caribbean's most dependable U/W petting zoos. Many compelling and dramatic photos of divers hugging groupers or entwined in huge, green moray eels have been taken here.

The resort's location allows for easy access to all of Grand Cayman's famed western dive sites: Orange Canyon, Trinity Caves, Sand Chute, Big Dipper, Spanish Anchor, Eden Rocks and the wrecks of the *Balboa* and *Oro Verde*. The entire west coast from Northwest Point to Eagle Ray Rocks in the south can be covered by boat in the same day. North coast and south coast trips are possible on separate diving days. The west coast is normally in the lee of prevailing trade winds and the water on this side of Grand Cayman is most often calm and clear. In the event of a rare "nor'wester" or northern cold front, Sunset House boats are moved over to a dock on the southwest side of island. Divers and equipment are then bused or trucked over to the boats to dive here.

The combination of the shallow, "natural" saltwater pool and the excellent shore diving with progressive depths as well as resort and certification courses, makes Sunset House ideal for either novice or experienced divers.

Topside conditions also give Sunset House high points. You can walk to George Town (capital and commercial center) for shopping and sightseeing or take a taxi to popular Seven Mile Beach. Joggers will appreciate the south coast road, where it is possible to jog past several miles of pleasant white picket fences shaded by bougainvillea.

Another important point of logistics is both the shop and boats are on the resort premises, allowing easy transfer of equipment and minimum movement from room to boats that are normally boarded at protected slipways behind the resort.

The two main dive boats, *Leopard Ray* and *Eagle Ray*, are 36 feet long—big enough for 20 divers but not too large or impersonal. A slightly smaller version, the 31 foot *Sun Diver* (16 passengers), completes the Sunset House fleet. The appointments are straightforward, practical and direct—lots of space, a wide platform and adequate storage areas. The boats are roofed for protection from the strong Cayman sun.

Upon arrival at Sunset House I was greeted by Ron Levanas, the dive operations manager for the past eight years. He is a new friend who had helped me complete a recent assignment and I was genuinely pleased to see him again. Most everything with Ron is no problem and, from a guest's point of view, one has to wonder if the man ever gets in a bad mood. After a few friendly digs about how much photo equipment I had brought, Ron and a couple of his staff members helped me carry boxes and bags to an oceanfront room. Other than that and some sincere advice as to where and when to dive, no special attention was devoted to me as an emissary from SKIN DIVER. Ron and his staff are genuinely nice to everyone; every safe and sane request is met with courtesy and attention. Ron has been officially recognized for his consistent hospitality and professionalism, including an award for "divemaster of the year," by an organization that considers everyone in the Caribbean.

Further examples of professionalism and courtesy at Sunset House are found throughout the resort. From the efficiency of the check-in crew to the friendliness of dive tenders and the waiters, the staff makes everyone feel at home. The warm feelings, to a great extent, are examples set by the owners of the resort, Adrien and Bonnie Briggs, who have been managing Sunset House since its earliest acceptance by divers. Adrien and Bonnie are found at the resort most every day and evening, overseeing the activities and often socializing with guests.

The Sunsetter Restaurant is a large, plantation-style facility surrounded on three sides by screened windows with a view of sea and palms. The setting is relaxed and the service by maitre d' George and his Caymanian staff, impressive. For the evening meal there is normally a choice of entrées ranging from continental cuisine to local specialties. Lunch and dinner at Sunset House are always well prepared and served in adequate quantities. Breakfast is a choice of egg/bacon/sausage combinations or French toast. A large pitcher of orange juice is waiting on each breakfast table and a bottomless coffee pot is ready when the doors open.

My Bar, the thatched open air bar by the waterfront, is perhaps the friendliest spot on Grand Cayman Island. Each af-



Sunset House introduces great Surface Intervals.

It goes without saying that a dive vacation at Sunset House will give you the best diving ever.

That's why you're going to Cayman. And Sunset House is the Hotel that diving people have always loved.



You see, unlike the big hotel chains, we cater specially to divers. We're divers ourselves. And that means we think diving.

So when you're not out on one of our 3 dive boats, or giant-striding into the water right off the Hotel property, Sunset House has all the things that make a dive vacation even more fun.

Like our thatched bar—Cayman's most popular island bar. Our full-service restaurant and boutique gift shop.



There's always something going on at Sunset House.

So call now and make your reservation on 1-800 854 4767. Or write Box 479, Grand Cayman, Cayman Islands, BWI.

SUNSET HOUSE

Grand Cayman's Hotel for Divers by Divers

ternoon and evening an interesting mix of locals and visitors gather here. They come from all quadrants of the island to drink, socialize, play darts or dominos, or just to enjoy the breeze and watch a Cayman sun slide into the blue Caribbean. It is easy to meet Caymanians or make friends with other divers under the spell of the "Cheers" bar of the Caribbean.

Next to the reservation desk is the Sunset Boutique. This pleasant and well stocked gift shop features a selection of tasteful T-shirts, swimsuits, coverups and beachwear as well as special Cayman souvenirs including music tapes, fish identification cards and some wonderful island books for children. All popular side trips and topside excursions such as the RSL or Atlantis submarine adventures can be booked at the reservation desk.

The philosophy of the Sunset House dive operation is to provide access to all of the well known dive sites with the opportunity to see some special, out-of-the-way spots, especially around the south end of the island. Combined with unlimited shore diving in the afternoon and evenings, this provides a smorgasbord of underwater pleasures.

Sunset at Sunset House: I'm at the thatch bar hunkering over a beer with Jim Church (of the Jim and Cathy Church School of Photography). We are discussing photography, of course, but our eyes are fixed on an after-sunset sky that has just turned from rosé to burgundy. The bar hums with the sound of reggae music and pleasant laughter occasionally accented by the percussion of slamming dominos. Jim tells me the Churches are offering their popular underwater photography classes again this year at Sunset House from May 2 to September 12. That's good news for aspiring photographers. In addition to being excellent photographers and writers, Jim and Cathy are both professional teachers who instruct with a personal touch.

Now the sky is fringed in a final pink ribbon. Bathed in a tropical glow and surrounded by a tranquil sea, Jim and I begin to plan our next diving day.

For reservations contact Sally Caldicott, Sunset House, P.O. Box 479, Grand Cayman, British West Indies; (809) 949-7111 or (800) 854-4767.

For Jim and Cathy Church Photo Course information write P.O. Box 80, Gilroy, CA 95021-0080.

IF YOU DIVE
DON'T SMOKE
skin diver magazine

BONAIRE

PETER HUGHES
Dive Bonaire
AT THE DIVI FLAMINGO
BEACH HOTEL & CASINO



LEONORAS REEF

IT'S ALL THERE

Experience the beautiful underwater world of Bonaire with Dive Bonaire, Peter Hughes prima dive operation. The warm transparent seas surround unspoiled and spectacularly colored coral reefs and marine life.

Dive Bonaire's boats leave on schedule to the more than 40 breathtaking dive sites that lie within minutes of the casual Divi Flamingo Beach Hotel & Casino, the Caribbean's most complete dive resort. Photo Bonaire lets you capture your scuba adventures forever by providing a complete, professionally staffed on-site photo facility with 24-hour E-6 processing, instruction, plus still and video equipment rental.

Dive Bonaire under the brilliant rays of the Caribbean sun, or during the glowing moonlit hours of the soothing Flamingo nights...both are breathtaking.

Divi Flamingo and Peter Hughes Diving
proudly support and actively participate in the
NIKONOS SHOOTOUT '87

DISCOVER OUR CARIBBEAN
CALL 800-367-3484

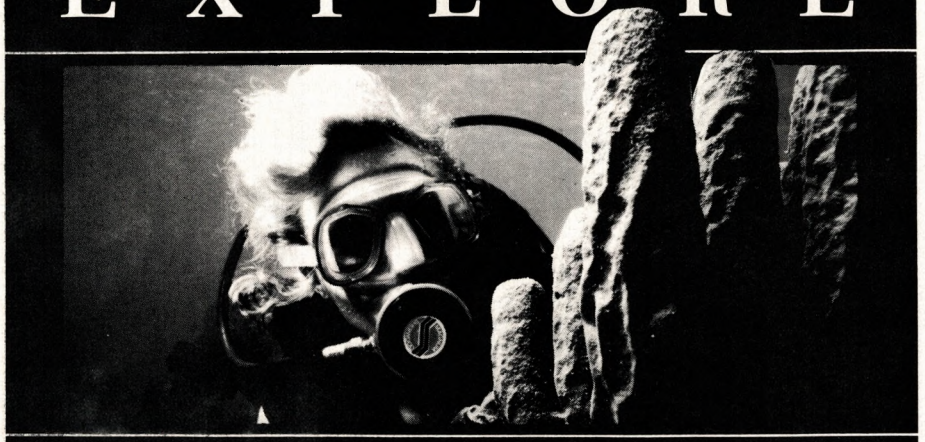
ALM ANTILLEAN AIRLINES
AIR-INCLUSIVE PACKAGES AVAILABLE VIA ALM ANTILLEAN AIRLINES FROM NEW YORK AND MIAMI.

Full cooperation with travel agents and dive professionals.

DIVI HOTELS MARKETING INC., 520 W. STATE ST., ITHACA, NY 14850, 607-277-3484

Peter Hughes Diving

EXPLORE



HOSPITALITY WORLD LIMITED

DON FOSTER'S Dive
Grand Cayman Ltd.

The world of Grand Cayman. Let Don Foster's be your guide.

Vacation in your own private villa, located on Seven Mile Beach, available through Hospitality World, Ltd. Vacation and diving packages begin as low as $272 pp/dbl occupancy for 4 days and 3 nights, including villa accommodations and diving activities. Available April 21-Dec. 15, 1987.

Contact Scuba Tours, 1-800-526-1394, or (201) 256-9115 in New Jersey.

Tax and gratuity not included.



Dive First Class

Now there is a first class diving vacation. **Don Foster's** will be opening their newest location on April 21st, 1987 at the **Grand Pavilion Hotel and Beach Club**, one of the Caribbean's newest and most desirable resorts.

While you're discovering Grand Cayman's incredible diving, you can now also enjoy the luxury of first class accommodations. The Grand Pavilion provides sumptuous rooms, gourmet dining, entertainment and a wealth of activities. And Seven Mile Beach is just moments away.

If you're a discriminating diver looking for the finest of everything in your vacation, contact **Scuba Tours, Inc., 1-800-526-1394,** or (201) 256-9155.

GRAND PAVILION
HOTEL AND BEACH CLUB

DON FOSTER'S Dive
Grand Cayman Ltd.
P.O. Box 151
Grand Cayman, Cayman Island
B.W.I.

The Normannia

Roaring 20's Freighter Bound For Charleston Sends SOS Off Cape Fear

TEXT AND PHOTOGRAPHY BY ROD FARB

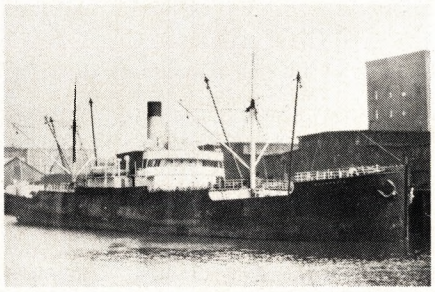
The nearly 30 year old freighter *Normannia* had seen her share of rough weather on several oceans, but the aging vessel was totally unprepared for what was later called one of the fiercest winter storms to hit the East Coast.

In mid-January of 1924, the 2,681 ton, 312 foot long Danish vessel was loading mahogany logs in Black River Bay, Jamaica. These were to be taken up the East Coast of the United States to Charleston and Philadelphia. Within a few days, Captain Blom, his wife Anna, their two dogs and a crew of 26 departed Jamaica and headed the fully loaded vessel north to Charleston.

On Wednesday, January 16, the *Normannia* was about 24 hours from her destination and running in building seas and winds. By noon the winds had reached gale force and battering seas began to take their toll on the well worn freighter. Her aging hull plates buckled and began to leak. By mid-afternoon seawater had extinguished the fires in her boiler room. Without power the hapless vessel was blown far off course as the fierce storm continued to rage throughout the afternoon. By dusk the *Normannia* was about 30 miles east of Cape Fear. Night fell and darkness added another dimension to the terror of the storm. Captain Blom sent out an urgent SOS. The

call was received by the navy in Charleston and two Coast Guard cutters were immediately dispatched to the rescue. The steamship *H.R. Mallory* also picked up the distress signal and, since she was only ten miles northeast of the *Normannia*, was the first to arrive on the scene. However, when she got to the *Normannia*'s radioed position, there was no sign of the sinking freighter. The gale was worsening and Captain Barstow of the *Mallory* did not want to become another casualty of the storm. He also feared collision with the out of control freighter nearby.

Finally, a lookout spotted a light flashing off the *Mallory*'s starboard bow. Barstow radioed Blom to set off some flares. Once located, Barstow moved to within one-quarter mile of the foundering vessel's stern. He dispatched a boat to the *Normannia*, which returned with a message. Captain Blom requested the *Mallory* tow them to safety, saving his precious vessel and cargo. Captain Barstow refused and sent another lifeboat back to remove the captain and those aboard. Mrs. Blom, two dogs and all of the crew—except six—were taken safely back to the *Mallory*. The six chose to ride out the storm with Captain Blom.



photo/courtesy Peabody Museum

The *Normannia* dockside in 1910. The 312 foot vessel was lost in 110 feet of water 28 miles east of Frying Pan Shoals, NC.

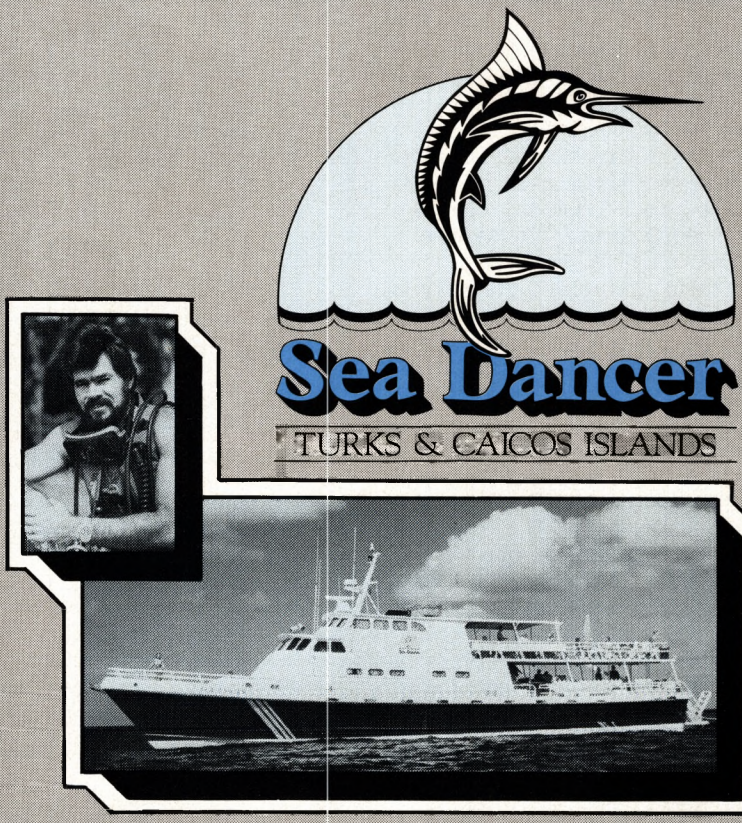
However, it soon became clear the *Normannia* was going to sink. The next morning Capt. Blom and the last of his crew abandoned ship in one of the lifeboats and were rescued by the freighter *Charles E. Hargood*. Blom was soon reunited with his wife in Charleston, after having survived one of the worst winter storms to hit the East Coast.

The *Normannia* sank in 110 feet of water about 28 miles east of Frying Pan Shoals and 35 miles southeast of Masonboro Inlet. One of the most interesting shipwrecks off the southern North Carolina coast, she is visited often by divers during the diving season.

The vessel settled to the sand in an upright position, but years on the ocean bottom have changed her appearance considerably. The midships portion broke up and collapsed to the sand, pulling the bow and stern upward to an angle of about 45 degrees to the bottom. The wreckage is scattered in a straight line running west (bow) to east (stern).

(Continued on Page 156)

TURKS & CAICOS



A NEW ERA IN CARIBBEAN DIVING

Peter Hughes' 110 ft. **Sea Dancer** has taken to the peaceful waters of the Turks & Caicos, an archipelago of eight exquisite beach- rimmed islands and numerous small cays, the walls of its waiting reefs harboring a magnificently prolific sea life of corals, sponges, sea turtles and hundreds of varieties of tropical fish.

Experience for yourself the thrill of a one-week diving exploration aboard **Sea Dancer**, combining the barefoot elegance of Divi Hotels with the hassle-free diving system Peter Hughes has long been famous for.

You'll find this extraordinary "floating dive resort" unparalleled among diving liveaboards for efficiency, comfort and beauty:

- Eight twin-berthed double cabins plus four master staterooms, three with queen-size beds, all air-conditioned.
- Complete unlimited diving freedom, with on-board compressors that allow unlimited airfills. Tanks, backpacks, weights and weightbelt are provided.
- On-board photo lab for daily E-6 processing.
- Comfortable alfresco dining above deck.
- Zodiacs for quick and easy trips ashore.
- Additional watersports equipment including sailboards.
- Mini-boutique.
- Professional and personable service that you're accustomed to at other Peter Hughes Diving operations.

From $995. Per person price includes meals, non-alc. beverages, unlimited diving, roundtrip transfers, and govt. room tax. 8 days/7 nights; Sun.-Sun., twin-berthed double cabin.

CALL 800-367-3484

DIVI HOTELS MARKETING INC., 520 W. STATE ST., ITHACA, N.Y. 14850, 607-277-3484

Peter Hughes Diving

ONE ARMED BANDITS of the deep

Searching For Lost Slots In East Texas

BY CHARLES GARRETT

Submerged somewhere 20 feet beneath the surface of a small East Texas lake lie several pre-depression era slot machines, filled with a small fortune of liberty head and buffalo nickels. The story behind these mechanical treasure chests is true, dating back to the day they were unceremoniously tossed into the lake in the summer of 1919. Numerous times since my father first related this story to me I have dreamed of diving for the lost slots, but the pressures of business and other treasure hunting projects have always prevented it. Still, they are there for the taking.

But let's not get ahead of ourselves. Let's go back to the very beginning on a warm summer evening in the sleepy little ton of Lufkin, Texas. In 1919, my father was just a boy, at an age when everything excited him, especially the carnivals that would occasionally travel through town. Back then, most carnivals consisted of a few horse-drawn rides, side shows such as the elephant man, the lady with two heads and a snake charmer.



photo/courtesy Garrett Electronics

The author dons a drysuit in preparation for a search of the lake with a metal detector.

One summer evening, Dad rode his bicycle to a carnival that had just arrived in town and immediately began to explore the midway. Before long, one of his friends ran up shouting and motioning, "Wayne! Wayne! Come here! There's something you've got to see!" The two boys ran between a couple of tents and into a back area where another tent stood. The boys thought it odd that one tent was not out on the midway like the others and there was no carnival barker at its entrance.

Their curiosity sufficiently aroused, the boys raised the tent flap and moved cautiously inside. What they saw amazed them. There were two tables lined with slot machines. Dad could hear the whir-

This is Anthony's Key

Seductive and tantalizing Anthony's Key Resort. What appears to be a Gauguin painting is really the most beautiful seclusion for divers and dreamers in the world. Natural wood bungalows spill along a verdant hillside and across a palm-studded islet. A small dory transfers guests over a blue lagoon to the hillside restaurant.

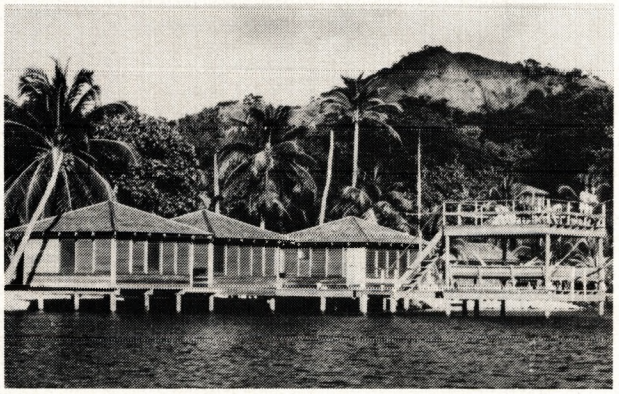
Aboard a custom dive boat you have a choice of one, two, or three single-tank dives per day. There are two boat night dives per week and the crystal lagoon invites you to enjoy unlimited shore diving.

Learn about the gentle art of underwater photography (E-6 processing daily) or schedule your own underwater video production. Later in the week our famous West Bay Picnic will treat you to the most beautiful beach scenery this side of Tahiti.

Topside, there is tennis, horseback riding, windsurfing, sunfish sailing, canoeing, blue-water fishing and, our newest attractions: the casino, dockside restaurant and "Splash Dance" disco.

Write or call today for details of a 7-night ticket to paradise.

Nikonos Photo Technique Seminar with Rick Frehsee Feb. 28-Mar. 7, 1987. Early reservations advised.



The finest dive resort in the Western Caribbean

Anthony's Key Resort

Roatan • Bay Islands • Honduras

US Executive Office
1385 Coral Way Ste. 302
Miami, FL 33145

1-800-227-3483 (DIVE)
National toll free

1-800-343-3483 (DIVE)
Florida toll free

1-305-858-3483 (DIVE)
Florida direct

© 1985 MediaTech Inc.
Miami, FL

ring of the wheels as people put their nickels in and "shook hands" with the one armed bandits. Only occasionally did he hear the clatter of nickels falling back out. My dad's friend liked what he saw and shouted, "Come on, Wayne, let's win ourselves some money!"

Dad walked over to the nearest slot machine, dropped a nickel in the slot and pulled the lever. The wheels whirred as the pictures of lemons, oranges and other fruit blurred past the windows. Each wheel clunked to a stop—but no coins fell into the winner's bowl. After a few more woefully unsuccessful tries Dad realized he had wasted enough money.

It didn't take long for Dad's young friend to lose most of his money as well and he was anxious to begin moving on down the midway. Dad told him to go ahead, he would be along shortly. For a time, Dad just stood there with childlike inquisitiveness, watching the people place more nickels in the slot machines to try their luck.

Suddenly, a boy came into the tent and ran up to a young man who happened to be standing near Dad. He overheard the boy say to the young man, "The sheriff's looking for you!"

Dad remembers the young man turned sharply and walked out under the tent flap. A few minutes later he returned with an older man and the two of them immediately raised the rear wall of the tent and began to load the slot machines into the bed of a Model-T Ford pickup. After they had loaded all of the machines, the pair climbed into the cab; the older man fired up the engine and they drove off toward the carnival entrance.

Dad chased along behind the Model-T until they reached the entrance of the carnival grounds where he had left his bike. Wasting no time, he hopped on his bike and began pedalling as fast as he could in an attempt to keep up with the pickup.

Unknown to Dad at his young age, during that period in East Texas, the once-open attitude toward gambling machines was being replaced by laws that restricted the placing of slot machines and other gambling devices in public places. Although he didn't know about the laws, he knew the two men in the pickup were frightened and were on their way to, as the older man had said to the younger, " . . . dump these machines."

Because it was beginning to get dark, the men could not see Dad furiously pedalling behind them. Even though he had fallen about one-half mile behind, he could still hear the noise the old truck made as it chugged down the dirt road. Soon, it turned onto a road that ran near Jones' Lake. Dad had been here many times before—it was his favorite swimming hole.

Pedalling closer to the lake, he heard the truck's engine stop and the doors slam. Leaving his bike some distance away, he sneaked toward the car. As he

(Continued on Page 108)

CAYMAN BRAC

Dive Tiara

PETER HUGHES
DIVE TIARA AT THE
DIVI TIARA BEACH HOTEL



BLOODY BAY WALL

LEAVE THE FUSS TO US

30 years of diving experience have gone into the development of the Peter Hughes hassle-free dive catering system that you enjoy with Dive Tiara.

Fast, custom-designed dive boats take you quickly to the numerous dive sites around Cayman Brac and Little Cayman, to the magnificent vertical wall alive with barrell sponges and rare varieties of brilliantly colored tropical fish. Dive Tiara's friendly, professionally trained staff offers the assistance and guidance necessary to assure you the ultimate in underwater adventure, the Peter Hughes dive experience.

The 42-room Divi Tiara Beach Hotel is situated on Cayman Brac's most gorgeous palm-fringed beach. With tennis, freshwater pool, sailboards, paddleboats and bicycles, Divi Tiara has just what you need to complete a relaxing and memorable dive vacation.

DISCOVER OUR CARIBBEAN
CALL 800-367-3484

Full cooperation with travel agents and dive professionals.
DIVI HOTELS MARKETING INC., 120 W. STATE ST., ITHACA, N.Y. 14850, 607-277-3484

Peter Hughes Diving

SUMMER LIVE-ABOARDS...

A Smorgasbord of Diving Adventures







See & Sea Travel offers live-aboard dive cruises to exotic tropical destinations. Above left and left: The newly remodeled *Isla Mia* and the *Belize Aggressor* reach the coral gardens and walls of Belize's Lighthouse Reef. Below left: *Pacific Nomad* travels to Great Sea Reef off northern Fiji. Below: *Coralita* offers two different cruises in the Coral Sea.





TEXT AND PHOTOGRAPHY BY CARL ROESSLER

This year will be remembered as a vintage year for international diving. The array of new dive cruisers and destinations is greater than in any other year we've known. No matter when you take your dive vacation, you'll be able to choose among several world-class destinations at prices you'd never have thought possible.

Take this summer, for example. Four exciting new adventures vie for your attention. In Belize, the incredible new *Belize Aggressor* joins the famed *Aggressor* fleet. Like the *Cayman Aggressor II* and *Cayman Aggressor III*, this new Belize cruiser offers you hotel-like comfort 60 miles out to sea. All of the advantages of live-aboard diving are available in Belize. And, since there are no hotels at Lighthouse Reef, you can dive these fabled walls only with a well equipped live-aboard cruiser.

tailor the week's itinerary to your preferences, lingering at the dive sites you like.

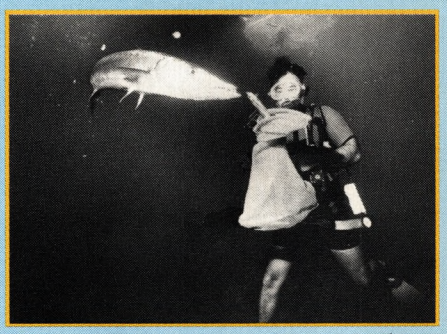
If you have ever wanted to search out the sea lions, manta rays, schooling hammerheads and exotic fish species that made Baja famous, this is your year to have it all. Couples and families will find *Elias Mann* the perfect vehicle for all-out diving or the ideal way to mix nondivers, children or snorkelers with avid divers in a week of adventure.

In the Pacific, a new star has been born in northern Fiji. For not much more than you'd spend on a Caribbean cruise, the 100 foot *Pacific Nomad* will take you to remote Great Sea Reef. Here, with the amenities of this floating hotel, you'll explore a 40 mile long drop-off never before known to divers.

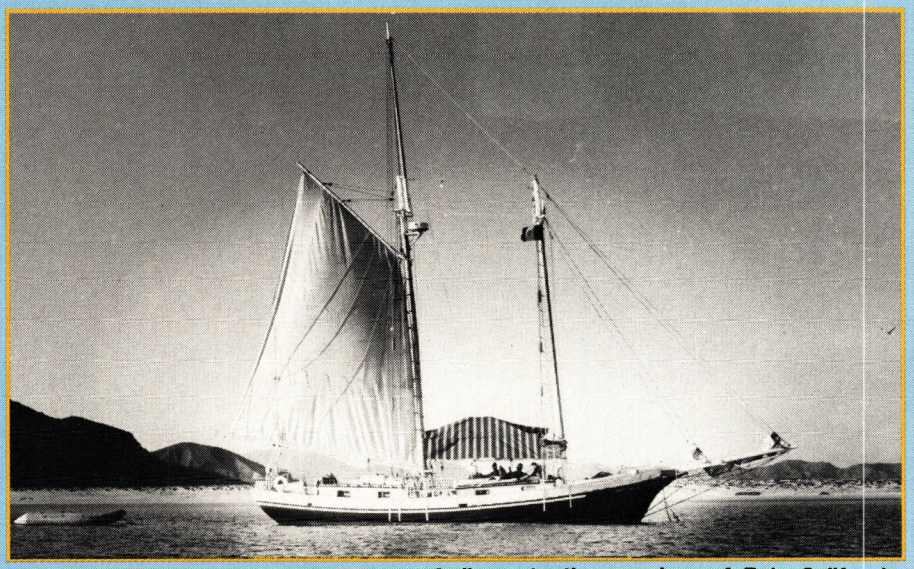
Great Sea Reef extends westward in a huge loop from Vanua Levu far beyond the reach of any day boat. The drop-offs

combination or an Osprey Reef/Cod Hole adventure has plummeted to $2,450 per person.

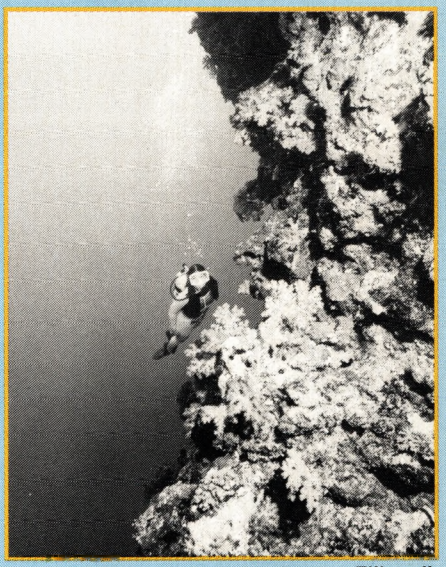
In fact, some divers are now beginning to book combination cruises: a Coral Sea cruise followed by a week aboard *Pacific Nomad* in Fiji. Or, you might consider 10 days in southern Fiji aboard *Sta Reta* at Great Astrolabe Reef plus a week aboard



A diver offers a barracuda a tasty tidbit.



The *Elias Mann* carries small groups of divers to the wonders of Baja California.



Jessica Roessler cruises along a Fiji wall.

The 75 foot *Isla Mia* has introduced hundreds of divers to these reefs. Now, both *Isla Mia* (newly remodeled) and the new *Belize Aggressor* will ply these adventurous waters. Those who have never dived Belize will find Lighthouse to be among the richest reef complexes in the entire Caribbean.

Meanwhile, in Baja California, See & Sea now offers divers a completely new way to dive the classic seamounts of the Sea of Cortez. The 50 foot motor/sailer, *Elias Mann*, lets you dive Baja any week you wish from May 15 to October 15. *Elias Mann* accommodates three to four divers with a level of personal service and flexibility that Baja's large cruisers obviously cannot match. The crew can

of this colossal reef plunge to 6,000 feet in crystal clear water. These massive walls are honeycombed with caverns, archways and canyons, along whose battlements soar great pelagics in their never-ending wanderings.

What is most exciting is *Pacific Nomad* will let you dive the Pacific as you now dive the Caribbean: Leave Friday night from the West Coast, dive a week and be home for work on Monday morning.

As a proper finale to this fabulous summer, in September the 79 foot *Coralita* will debut in Australia's Coral Sea. will escort a gala inaugural September 24 to October 5 to usher in a new, affordable way to see these world-famous reefs. The cost of a Marion Reef/*Yongala* wreck

Pacific Nomad in the northern reefs. That way you really get the most possible diving for the cost of your airline ticket.

The transformation of international dive travel is in high gear. A world of new boats at affordable prices means See & Sea can now offer you unlimited diving adventures on the world's greatest reefs for prices you'd have never thought possible. No matter where in the world you want to dive, you can call See & Sea's toll free hotline for information on your dream vacation. Isn't it time you planned that great trip you've been putting off?

Contact See & Sea Travel, 50 Francisco St., Suite 205, San Francisco, CA 94133 or call (800) DIV-XPRT or (415) 434-3400.

Cayman's Newest and Most Complete Resort

The Best of Grand Cayman is Here at Treasure Island Resort



An oceanful of challenging water sports awaits you at Treasure Island Resort. From scuba diving with our own Treasure Island Divers to jet skiing, snorkeling to deep sea fishing...all in the crystal blue splendor of the Caribbean.

Attractive accommodations range from a single hotel room, doubles start at $110 a night, to a three bedroom condominium. Entertaining your palate is simple with a culinary masterpiece at L'Escargot, our gourmet restaurant.

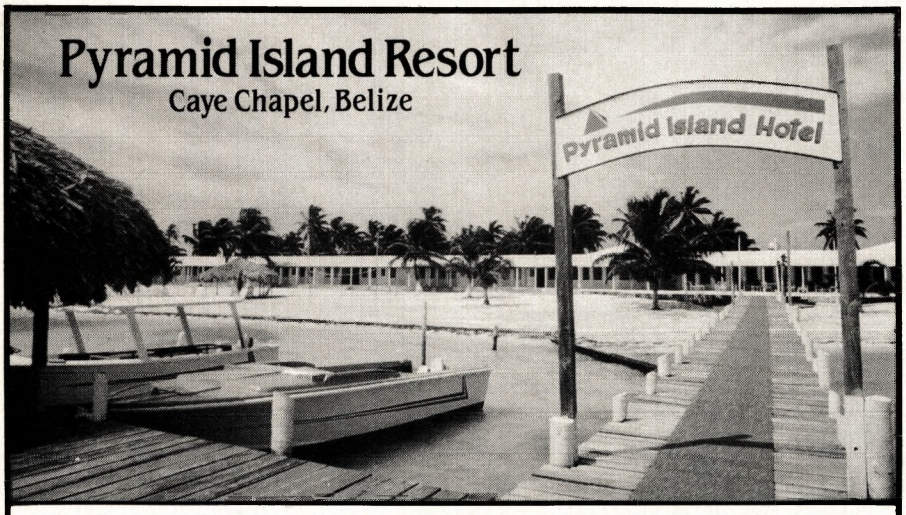
Dive packages with Treasure Island Divers start at $145, some restrictions apply.

For more information call 809-949-7777.

Treasure Island RESORT
Grand Cayman, BWI

For Reservations:
1-800-874-0027
TOLL FREE

Pyramid Island Resort
Caye Chapel, Belize



The Great Escape

Escape to our private island. Just five minutes from the Caribbean's best kept secret—Belize's Barrier Reef. Land on our 3,300' cemented airstrip or dock in our full service marina. 32 air-conditioned rooms on the beach, a bountiful bar, local and international dining. Enjoy our full watersports facilities, play tennis or volleyball, or just relax and escape.

FROM: $599.00
per person double occupancy
• 6 nights/7 days • 3 meals a day
• Air transfers to and from Belize airport
• 2 Barrier Reef dives a day
• Unlimited beach diving
• Free tanks and weights
Taxes and service charge included

Call toll free in the US • 1-800-325-3401
P.O. Box 1545, Ashland, Kentucky 41105
OR write us at: Pyramid Island Resort, P.O. Box 192, Belize City, Belize, C.A.
Tel. 011-501-02-44409

LOST SLOTS

(Continued from Page 105)

neared the lake, he heard a loud splash, then another and another. Once he was close enough to see the men, he watched as they picked up each machine out of the truck, staggered under the tremendous weight, and carried it to the end of the pier. There they heaved the machines into the water. Dad remembers that each man made about six trips, meaning that at least 12 slot machines plunged to the bottom of Jones' Lake that night. When they were finished, the men jumped into the truck, cranked up the engine and drove off into the night.

Many times in the years that followed, Dad returned to the lake for a swim. Each time, he thought about the slot machines lying on the bottom. One day, when he was about 18, he decided to dive and make a recovery. On his first attempt, however, he failed to even reach the bottom at ten feet and he shot to the surface with his lungs screaming for air. He hadn't realized how deep the water was.

Determined to succeed, he dove again, groped around in the dark, murky water and grabbed one of the machines. On the next dive, he was able to drag it a few feet along the bottom and so on for several successive dives, until he had wrestled the one armed bandit into shallow water along the lake's edge. He waited until nightfall, then used a crowbar to break into the machine and empty the coin box. Then he carried the machine back to the end of the pier and returned it to the water.

For more than 50 years, Dad kept the secret of the remaining 11 slot machines. Because of the difficulty he had in recovering just one machine and his fear of what the sheriff might do if he discovered Dad's "booty," he never attempted to recover the rest of the lost slots.

One day, however, as the two of us were driving in East Texas, he began telling me the story. Drawn like a magnet to the lake, we parked the car there and looked the place over. Then, some time later, we returned to the site with Jim Cross of Cross International, an U/W salvage organization. It was a cold fall in Texas and Cross was under contract to dredge a channel in a large East Texas lake. Because he was available for a few days and had the right equipment with him, we decided the time was right for going after the drowned carnival slot machines. For this search, we would be joined by others from the Cross outfit.

To begin the search, we used a Lowrance sonar to make careful grid surveys of the bottom. Fish were everywhere. At one point, the stylus on the sonar chart mapped a very long pencil-like shape on the paper, about halfway be-

ADVENTURES FOR ADVANCED DIVERS!



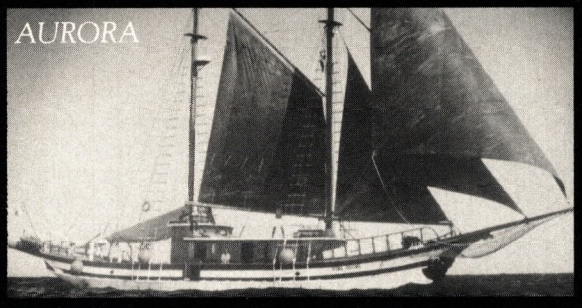
PALAU--This vessel has revolutionized diving here - air conditioned, three private doubles, unlimited diving -- no more long speedboat rides -- you're anchored over great diving all the time.



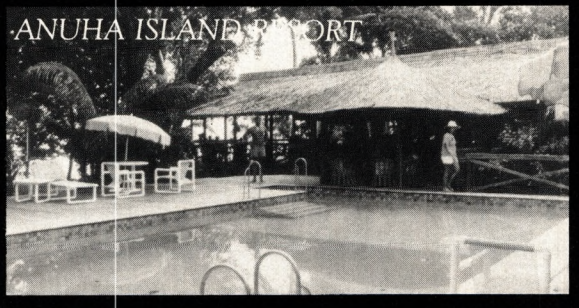
THE CAYMANS--These great cruisers set a new standard for Cayman diving. Beyond compare!



THE RED SEA--Long-famed for superb reefs, this is a must for every advanced diver.



THE SUDAN--One of the world's most exciting dive adventures. Great wrecks, nearly tame sharks, big fish & Cousteau's habitat.



THE SOLOMONS--Shore based or live-aboard diving on superb reefs. Brand-new area. Rivals Coral Sea for excitement!

See & Sea Travel, Inc. exclusively represents the world's finest fleet of dive cruisers as well as booking the world's leading shore-based dive resorts. See & Sea will not represent any vessel that won't deliver excellent food, personal comfort and service and unlimited diving. Join us in Belize, the Solomons, the Caymans, Turks & Caicos, Maldives, Red Sea, Truk Lagoon, Thailand, Fiji, Philippines, Papua New Guinea, Galapagos, Palau, Australia's Coral Sea, Baja, Sudan and our Great White Shark expedition.

Insist on the finest; insist on See & Sea diving adventures.

See & Sea
TRAVEL SERVICE, INC.
50 FRANCISCO ST., STE. 205
SAN FRANCISCO, CA 94133
TELEPHONE (415) 434-3400
TELEX 278036 SEAS UR

1966 TWENTY-ONE YEARS OF SERVICE TO DIVERS 1987

Call the Dive Experts at: 1-800-DIV-XPRT

Now Open at Treasure Island Resort, Cayman's Newest Resort



Treasure Island Divers Presents:
New Diving Adventures With Some Old Friends!

Treasure Island Divers is now in their permanent home at Treasure Island Resort. No one knows the waters around Cayman better and with three new dive boats there will be an oceanful of new diving experiences. Call 809-949-7777 for more information.

Take advantage of these personalized dive packages:

Treasure Island Resort
Hotel—Double Occupancy
3 nights ***$260****
4 nights ***$285****
7 nights ***$515****

Treasure Island Resort
Condominiums—4 person occupancy
3 nights ***$145****
4 nights ***$205****
7 nights ***$385****

*Per person including accommodations, boat dives, unlimited shore dives and T-shirt.

For more information call:

Treasure Island DIVERS
Grand Cayman, BWI
Let the Natives take you Diving
1-800-223-4707 (in U.S.)
1-800-367-4707 (in Florida)
Discounted airfares available for dive packages



Experience the diving adventure of a lifetime in MICRONESIA. Explore the fabled wrecks of Truk Lagoon, dive incredible walls of Oroluck Atoll & discover the unchanged beauty of the Truk western islands such as Namonuito & Puluwat. The S/S THROFINN is one of the world's largest and best equipped dive vessels. With 13 staterooms (all air-conditioned), a plush lounge with VCR, A/V facilities and our famous sundeck with hot tub, you will dive in comfort and security. We offer unlimited diving from our 24' launches and optional windsurfing and fishing between dives. Our new 1987 schedule is tailored to suit your needs . . . dive Truk and adjacent atolls for either 6 days or 8 days . . . or experience a true Micronesia odyssey with a 12 day excursion from Truk to Pohnpei.

CALL TOLL FREE: 1-800-663-8746 OR 1-800-222-4552
Write: SEAWARD HOLIDAYS
2315 Commissioner St. Vancouver, B.C. V5L 1A4
or: 1604 Ruth Place Honolulu, HI 96816
or contact your local dive travel agent

tween the lake bottom and the surface. Someone said that the mark represented one of the largest fish he had ever seen recorded on a sonar printout—but that night we learned the object may not have been a fish after all. Alligators, according to Lufkin locals, have been seen many times in the lake.

None of us was particularly fond of meeting up with an alligator, but we were determined to find those lost slots. So the exploratory survey went on.

The sonar showed the deepest part of the lake—the portion along the dam—was about 18 feet deep. In numerous places the sonar drew objects that were protruding out of the bottom. In fact, it appeared the whole lake bottom was covered with slot machines!

Selecting a likely area, Cross was first to don diving gear. A drysuit would keep his entire body dry and two way radio communications would allow him to stay in constant touch with those on shore. The communications link would give a tremendous edge in security and safety as he began to work in a lake so dark his hand was visible only when pressed against his facemask.

Cross had only taken a dozen steps when he realized he was walking in heavy silt. "Great Scott!" he exclaimed. "This mud is knee deep!" As he continued to walk, the mud got deeper, reaching a depth of about six to eight feet as he neared the area of the present-day pier. He was able to make his way through the mud walking on the solid clay bottom. Then he discovered the bottom under the pier was littered with junk of every size, shape and description.

Because visibility on the bottom was zero, Cross would walk slowly across the bottom until he bumped into something. Then he would reach down, feel the object and try to determine its identity. For all of his effort, however, the first dive produced no slot machines.

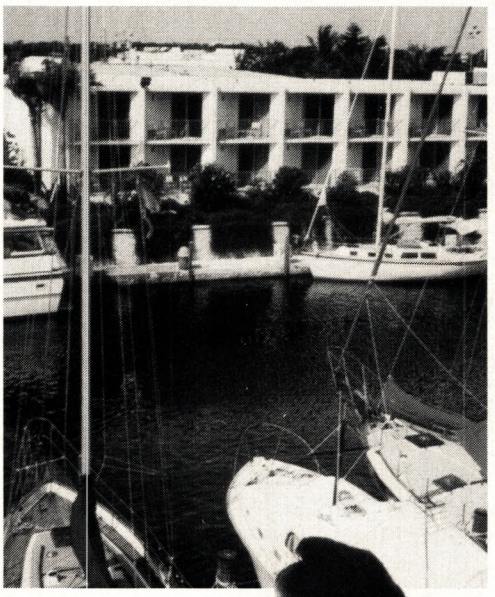
Beginning with the next dive, an underwater metal detector was deployed and used whenever it could be forced through the mud. In the junkyard beneath the pier, dozens of metal objects caused the detector to sound off; but again, none of them even resembled a slot machine.

As Cross worked his way out, he suddenly piped through the radio, "I've found a motorcycle!" Digging through the silt with his hands, he felt the frame and spokes of two wheels. We listened intently as he described what he had found—but we determined the low value of the machine was not worth the trouble it would take to pull it free of the suction-like grip of the mud. As Cross resumed his search, he marveled at the many bottles scattered across the bottom. His sec-

PENNEKAMP PARK • Holiday Inn®

A BETTER PLACE TO BE–KEY LARGO

3 DAYS 3 NIGHTS $215.50 *per person dbl. occ. price subject to change*



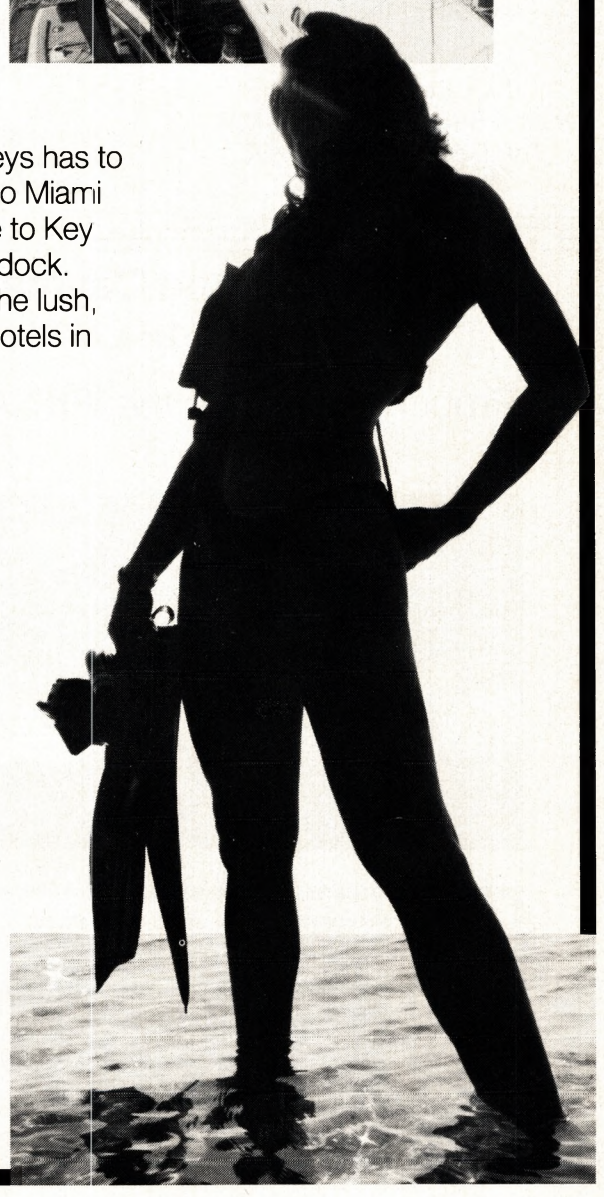
The complete resort in the fabulous Florida Keys.

Key Largo Holiday Inn offers 132 comfortable rooms and suites with double or king size beds. Enjoy a tropical drink at our Tiki Bar between dips in the pool, or tennis on our lighted courts.

Outstanding seafood and other entrees await you in Greenstreet's Dining Room, home of our famous Gourmet Seafood Buffet. On Sunday we offer a sparkling Champagne Brunch for your pleasure.

Key Largo Holiday Inn, the best the Florida Keys has to offer, is easily accessible by land, sea, or air. Fly into Miami International Airport and enjoy a short, scenic drive to Key Largo, or pull your boat up to our own deep-water dock. However you travel, make your diving destination the lush, tropical Key Largo Holiday Inn, one of only three motels in the Florida Keys to be awarded a three-star rating.





Dive package includes:
- Accommodations
- 3 half day boat trips
- 2 tanks/pak/air
- weight belt/weights

Snorkel Packages Available

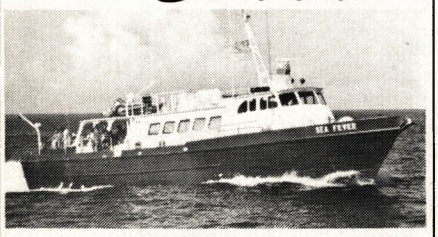
Video Camera Rentals available

SEA DWELLERS
SPORTS CENTER
MILE MARKER 100-S, KEY LARGO, FL 33037
"We've never forgotten that diving is fun!"

1-800-451-3640

In FL (305) 451-3640
In Miami (305) 245-0333

Bahamas Bound



SEA FEVER

CATCH IT NOW!

90' ALUMINUM AIR CONDITIONED
USCG CERTIFIED VESSEL

• UNLIMITED DIVING • CRUISES
CAY SAL, BERRY ISLANDS, ANDROS •
• WINDSURFING • WATER SKIING •
• UNDERWATER VIDEO •

P.O. Box 39-8276
Miami Beach, Florida 33139
Toll Free 800-44-FEVER
FL 305-531-DIVE

LOST SLOTS

ond search produced nothing.

After a short lunch break, Cross' brother donned the drysuit and took up the search where Jim left off. Making his way north from the location of the motorcycle, he began a circular grid search using the metal detector and feeling his way as he walked along. He found fishing poles, spears and an endless assortment of other fishing paraphernalia, along with the usual bottles.

Suddenly he exclaimed, "I've found something! I'm standing on top of it in mud that comes well over my head. The mud must be eight feet deep at this point. The object is rounded and is roughly the size and shape of a slot machine!"

In his excitement, he dove headfirst into the mud. Working with his hands, he began to uncover the object—we were certain he had found the first of the slot machines! But as the object emerged from the silt, it turned out to be a large piece of concrete. Later, in talking with a park attendant, we learned that some years ago park personnel had broken up an old concrete building and thrown large chunks of it into the lake.

Disappointed but undaunted, the diver continued the search. He next found an intact wooden boat, and an object he believed to be the bed of a large wagon, about four feet wide and eight feet long. By the time his energy was depleted, the lost East Texas slots were still as lost as they had been when we started.

While the divers were in the water, I worked the water's edge with a metal detector. I knew the lake had been used for swimming for perhaps 60 or 70 years and I believed that many coins, rings and jewelry might be there for the taking. The mud along the banks, however, was at least two feet deep and a tremendous quantity of tree limbs, broken wood, concrete and other junk was strewn along the bottom. Bottles and broken glass were everywhere. After about an hour I gave up my search, realizing the only way to recover coins and rings from this lake was to drain it and sift through tons of mud and debris.

During our evening meal we made plans for the next day. We had studied the sonar charts and were curious about the identity of several objects along the bottom near the dam. We theorized these might be objects that had been thrown into the lake or perhaps the remains of other piers that predated the one we were working near.

The next morning Cross and I donned the drysuits and worked along the steep slope of the dam. He found numerous

Holiday Inn Grand Cayman
"The Inn On The Beach"

and

Ron Kipp's
Bob Soto's Diving LTD.

Proudly announce the **Fifth** Annual **Guaranteed Dive** Vacation

AGAIN...NO SURPRISES AND NO EXCUSES.
PLUS THESE NEW ADDITIONS!



The Hotel—Our International Beach Resort is located right on the beach in the heart and best part of beautiful 7-Mile Beach. Spacious, well appointed rooms, fresh-water pool and beach bar. Excellent food and the home of Cayman's best evening entertainment, the legendary Barefoot Man, the "Scuba Balladeer."

The Diving—Bob Soto's Diving Ltd., the island's only PADI 5-star diving facility, presents the most comfortable, spacious boats on Grand Cayman. Our drop-front boats pick you up right at the Holiday Inn beach—5-15 minutes to Cayman's best dive sites.

New Additions—Upgrade available for North Wall or Double Wall Dives at minimal additional charge.

Underwater slide show every week. Maximum divers per boat 20 people.

Room upgrade at additional cost, based on availability at time of arrival.

Dive Package Includes—5 nite accommodations (economy category) at the Holiday Inn Grand Cayman—full American breakfast daily—four morning two tank dives—one night dive.

Package Also Includes—Unlimited shore diving • tanks/backpack/weight belt/surface buoy for shore dives • free Bob Soto's Diving T-shirt • Welcome Manager's Rum Punch Party • free admission to the Wreck of the Ten Sails nightclub • All the amenities of the Holiday Inn Grand Cayman. *Air fare is not included.*

Your dive boat will operate every day—GUARANTEED
Your room reservations are confirmed every day—GUARANTEED
Or your diving vacation is free—GUARANTEED

Price **$399.00*** per person double occupancy

Effective April 21 through December 15, 1987

Three night package **$219.00*** per person double occupancy

Seven night package **$529.00*** per person double occupancy

*Prices do not include the 10% service charge and 6% government tax which will be quoted at the time of booking.

Holiday Inn International Beach Resort GRAND CAYMAN CAYMAN ISLANDS, B.W.I.

NORTHWEST

See your Professional Travel Agent, Dive Shop or write: U.S. Reservations Office, The Holiday Inn Grand Cayman, 5100 Poplar Avenue, Suite 2219, Memphis, Tennessee 38137.

1-800-421-9999

RON KIPP'S Bob Soto's DIVING LTD.

rotted posts sticking up out of the mud—confirming our theory about previous piers. The most remote piling was at a depth of 18 feet. Burrowing down through the mud another ten feet, he finally reached hard packed clay. As at the other site, it was very difficult to search here because of the vast amounts of junk. At one time during his dive, Cross felt something bump into his backside from out of the muck—not once, but twice! Remembering the story of the alligators, he had to force himself to suppress some fear.

I concentrated my search in the shallow water along the dam. I made two passes along the embankment, searching with my hands as I pulled myself along on my stomach. I found the now-mundane assortment of bottles, logs and various other junk, including a 15 foot long metal rod. I wondered if someone else had been there before us, using the rod to probe down into the mud.

At one point well into my dive, I reached my hand forward to pull myself along and, as I did, I grasped a rounded object. As I reached my other hand forward, I lost my balance—and the object started moving! As I reeled backward trying to get away from the "alligator" that I imagined was before me, I accidentally flipped over and began sliding uncontrollably down the steep embankment, down to the bottom of that 18 foot deep hole!

When I finally came to a stop, I was tangled up in a rat's nest of air hose, safety line, tree limbs and various other junk I had gleaned from the muck as I slid along. After a few very anxious moments, I righted myself, untangled my line and began to work my way back up the underwater incline. I knew there was nowhere to go but forward, so I cautiously pulled myself along the bottom back into shallow water. At one point in the zero-visibility soup I again grabbed a rounded object. This time, however, I realized I had a tree root in my hand; flimsy evidence the object I had grabbed earlier was not the hungry alligator I envisioned.

I continued my underwater search throughout the morning and the others followed suit, finding an endless list of objects—but no lost slots. Near the end of the second day—cold, tired and alligator-jumpy—we decided to call it quits. We packed our gear and headed west, with visions of slot machines packed with buffalo nickels still haunting our thoughts.

As we debriefed later, we theorized that Dad's pier, circa 1919, could have been anywhere along two different shores of that lake. We believe that if the slot machines are still there, they most likely rest on the clay bottom beneath a combined depth of 20 feet of water and thick, suffocating silt.

And, the way we see it, they may be guarded by several hungry, but financially secure, East Texas alligators!

EL PLACER DEL CARIBE



The ONLY Resort less than 1 hour from Chinchorro Reef. A Place for genuine personal service. Unlimited diving on Chinchorro—"The Wreck Capital of the World" Plus 100′ Dives 5 minutes from the Club.

"DELTA DAWN OUTDOORS"
1-800-237-7552 U.S.
MS 601-875-2014
5500 Allen Rd.
Ocean Springs, MS 39564

CONTINENTAL EVERYBODY GETS A DEAL TO Cozumel

- Roundtrip Air from Houston
- 8 Day/7 Night hotel accommodations with tax included
- 6 Two-Tank Dives with Lunch
- Unlimited Beach Diving

$649.–
Per person based on double occupancy

From Austin + $63.–
From Boston + $203.–
From Chicago + $128.–
From Dallas Ft. Worth + $13.–
From Denver + $118.–
From Los Angeles + $158.–
From Minneapolis St. Paul + $153.–
From New Orleans + $73.–
From New York + $153.–
From New York Newark + $153.–
From Phoenix + $153.–
From San Antonio + $43.–
From San Francisco + $173.–
From Seattle + $193.–
From Washington D.C. + $173.–

FOR MORE INFORMATION
1-800-446-2166
(TEXAS RESIDENTS CALL COLLECT (713) 446-2166 FOR RESERVATIONS ONLY)

Two Worlds Travel
1307 First St., Humble, TX 77338

*PRICES SUBJECT TO CHANGE

DAILY DEPARTURES

Ocean Divers and Marina del Mar share a scenic stretch of deep water canal with easy boat access to the Atlantic Ocean and the southern end of the Key Largo National Marine Sanctuary (Pennekamp Park). Within this waterfront complex virtually all needs and recreational desires of their guests may be filled without the necessity of a rental car.

Viable vacation concerns for the traveling diver should be quality boat transportation, safe and courteous dive operations, clean and comfortable accommodations, good food, and night life. Ocean Divers and Marina del Mar go beyond these basic requirements for diver happiness, offering all of the above and more.

Since the coral reefs within the Key Largo National Marine Sanctuary are five to six miles offshore, it is essential that boats be available. Ocean Divers has this necessity covered with two deluxe multi-passenger vessels. The *Ocean Diver* is a 50 foot deep-V fiberglass vessel powered by twin 8V71 diesels and the newly refurbished *Captain Crunch II* is a wonderful addition to the fleet. The 65 foot classic wooden dive boat is powered by twin diesels and, like the *Ocean Diver*, sports numerous diver convenience features. Walk-through transoms, massive dive platforms with extended ladders, tank racks and stereo are standard equipment. Extra touches include freshwater showers and camera rinses, functional heads and film changing tables. Since both boats are docked just steps away from the dive shop and gear rental area, loading and off-loading are easy.



Top: Transparent jellyfish. Above: Marina del Mar.



Ocean Divers store exterior

MARINA DEL MAR

Key Largo's First Class Dive Resort

TEXT AND PHOTOGRAPHY BY STEPHEN FRINK

Ocean Divers occupies two retail centers, a tastefully modern 7,000 square foot complex adjacent to Marina del Mar on the waterfront and a highway location shared with Stephen Frink Photographic. The highway locale features T-shirts, post cards, masks and fins and, of course, underwater photographic equipment for rental and sale. In fact, the Florida Keys' most complete selection of underwater photo equipment is available here and E-6 film is processed daily. Underwater still and video camera instruction may be scheduled at any time, and PADI specialty certification is available, even at the instructor level.

The Ocean Divers waterfront locale features a spacious retail center, offices and classroom, regulator repairs, Doc's Galley Restaurant, a marine store, guest gear storage lock-up, scuba equipment rentals and a massive 100 cfm compressor with 70 cfm back-up and more than 30,000 cubic feet of air storage. A new recompression chamber and educational facility for hyperbaric medicine and diving accident management is also available at Ocean Divers. Operated under the auspices of Hyperbarics International and Dick Rutkowski, this is the only hyperbaric training facility in the United States open to the public. Physicians seeking Continuing Medical Education credits are able to obtain them in a pleasurable resort setting, and Ocean Divers' instructor's programs also utilize the chamber as part of a unique PADI Instructor Development Course.

Marina del Mar is conveniently situated in the heart of Key Largo, and is a modern, attractively decorated complex consisting of a hotel, marina, swimming pool and restaurant/night club. The three story hotel sits right on the waterfront. A glass enclosed elevator transports divers and gear between floors. The 56 rooms are configured as 32 doubles; 16 one room suites; three two bedroom, two bath suites; and one three bedroom, two bath suite. All of these units are very comfortable, modern and tastefully decorated. There is central air-conditioning as well as color TV with movie presentations, and small refrigerators in each room. The 42 slips in the marina are available for either seasonal or short-term rental; boat rentals, fishing guides and sailboat charters may be booked. The freshwater swimming pool and outdoor spa are the largest in Key Largo and frequently the scene of resort course and continuing diver education specialty courses conducted by Ocean Divers.

Additional amenities include two lighted tennis courts, a fitness center, an island fashions boutique, boat ramp, Club Nautico boat rentals and even washers and dryers on each floor of the hotel. Last summer we made use of the new meeting room by hosting more than 30 students in a Nikonos use symposium sponsored by Nikon. A complimentary continental breakfast is available at the marina side of the lobby for all Marina del Mar guests; lunch and dinner are served at Coconuts, Key Largo's most popular night spot.

Coconuts is new and contemporary, and since its opening in the spring of 1986, has been the happening night spot for visitors to Key Largo. With more than 5,600 square feet of restaurant and lounge overlooking both the marina and the pool, Coconuts is an impressive edifice of coral rock, glass and natural woods. There is a sophisticated sound system and light show to augment the seven piece bands appearing nightly. For those who would wish to be insulated from the night life, it is a comfort to realize that Coconuts is housed in a separate building away from the lodging.

Ocean Divers and Marina del Mar go beyond these basic requirements for diver happiness....

The quality of the physical aspects of Ocean Divers and Marina del Mar, the convenience of the resort atmosphere and the professionalism of the staff are a comfort to traveling divers; but without a remarkable underwater resource just offshore these businesses would never have evolved. The Key Largo National Marine Sanctuary has been protected as a marine preserve for 27 years and during that period spearfishing and coral collection have been totally prohibited.

The sanctuary is more than 100 square miles of U/W wonderland and the management is continually enacting conservation programs such as the placement of mooring buoys at most of the best dive spots to avoid anchor damage. The efforts are succeeding: Even though the Key Largo National Marine Sanctuary and John Pennekamp Coral Reef State Park host more divers annually than anywhere in the world, the fish populations are tremendous, the coral structures inspiring and the diving, world class.

For further information or reservations please contact Ocean Divers at 522 Caribbean Drive, Key Largo, Florida 33037 or phone (305) 451-1113. The toll free reservation number is (800) 451-1113. Marina del Mar may be contacted at P.O. Box 1050, Key Largo, FL 33037 or phone U.S. toll free (800) 451-3483, in Florida (800) 253-3483 or (305) 451-4107. Underwater photo questions or rental reservations may be directed to Stephen Frink Photographic, P.O. Box 2720, Key Largo, FL 33037 or phone (305) 451-3737.



A moray eel on the *City of Washington*



Inside the Ocean Divers store

BY JIM WALKER



NOGI AWARDS

Each year the Underwater Society of America recognizes significant contributions to sport diving by presenting NOGI awards to four members of the diving community. To clear up any confusion, the following distinguished people are listed as the 1985 NOGI winners (that's when they were nominated), which means we normally would have run this article in 1986 (that's when they receive their awards). Belatedly, and with apologies to these fine people, here are the 1986 NOGI award recipients:

Jim and Cathy Church/Arts: SDM's own contributing photo editors, Jim and Cathy Church, have possibly done more to "turn divers on" to the world of underwater photography than anyone else. Through their courses, books, articles and seminars, they have introduced thousands of divers to this fascinating activity and, indirectly, taught them to appreciate the creatures of the sea.

Jim and Cathy began writing for SKIN DIVER in 1960 and the popularity of their "how to" articles continues today, with their current series on underwater video.

Starting in 1972 at Spanish Bay Reef Resort on Grand Cayman, and later moving to St. Thomas in the USVI, the Churches have conducted an underwater photography course each year except for 1985 when they concentrated on a book. Attesting to their popularity as instructors, nearly 60 percent of their students return for more advanced training. Additionally, the Churches lead photo oriented dive trips to exotic locations around the world.

George Ruggieri/Science: George D. Ruggieri, S.J., Ph.D. is dedicated to the study of life in the sea. Beginning with graduate studies in biology at St. Louis University in 1955 and including his current position as director of the New York Aquarium & Osborne Laboratories of Marine Science, Dr. Ruggieri's list of accomplishments is far too long to print here. Some highlights include:

Receiving a Ph.D. in biology at St. Louis University in 1960.

Research associate and principal investigator in experimental embryology at the New York Aquarium.

Co-chairman, Food-Drugs from the Sea Symposiums.

Participant in the fourth meeting of U.S. and Soviet experts on the Bering Sea.

First recipient of the endowed Charter Chair in Marine Sciences, New York Zoological Society.

One of three American scientists invited by the Office of Naval Research to conduct seminars and workshops in India on bioactive substances.

Member of the U.S. National Committee for the International Union of Biological Sciences.



Key Largo's ONLY complete luxury dive resort



Only with Marina Del Mar and Ocean Divers may you experience the complete range of diving services in one convenient waterfront locale!

- 65' & 50' dive boats for day and night dives in Pennekamp Park.
- Deluxe accomdations in waterfront rooms & suites
- PADI 5 Star Instructor Development Facility.
- Stephen Frink Photo: video/camera rentals, processing.
- Full service marina: fuel, boat rentals, fishing & sailing.
- Oversize pool, jaccuzi, health club, tennis
- COCONUTS waterfront restaurant & lounge with live entertainment nightly.

Ocean Divers

MARINA DEL MAR
Resort and Marina

RESERVATIONS 1-800-451-1113
INFORMATION 305-451-1113

P.O. BOX 1050
1-800-451-3483
IN FL 1-800-253-3483

KEY LARGO, FLORIDA 33037

NEED A DIVE VACATION?
WHY NOT TAKE A
PADI®
Continuing Education Course Where YOU Prefer to Dive?
We have 17 Years Experience organizing dive group tours and individual diver vacations year round.
Bonaire • Bahamas • Caymans
Virgin Islands • Live Aboards
South Pacific
We Can Arrange Airfare
ALL GROUP TOURS ACCOMPANIED BY PADI INSTRUCTORS
Call or Write:
"The" Dive Shop
2841 Rogers Drive
Falls Church, VA 22042
(703) 698-7220
We teach while we travel
M/C VISA AMEX

NOGI AWARDS



John Cronin/Distinguished Service

Walt Hendrick, Sr./Sports/Education: Walt Hendrick, Sr. has spent the last 30 years initiating new members into our sport and improving diver training. Becoming a YMCA certified scuba instructor in 1961 and a NAUI instructor in 1962, his background includes being a dive shop owner, resort scuba instructor, shark researcher, underwater filmmaker, columnist and lecturer.



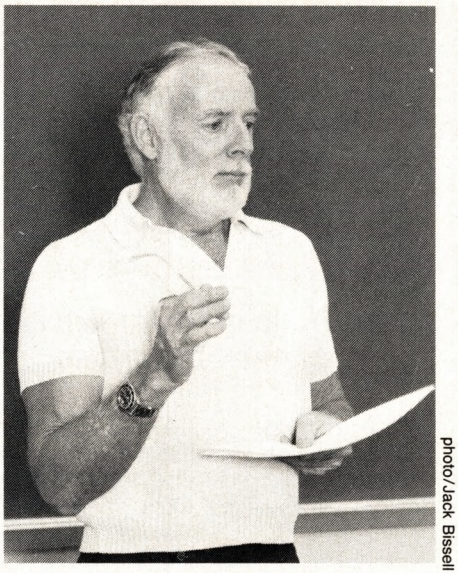
Jim and Cathy Church/Arts

For more than 25 years Hendrick has staffed and directed instructor training courses across the U.S. and lectured at all major conferences on underwater education. In 1982 he became the national training director for NAUI. In this position he conducted continuing education programs for instructor trainers, wrote for NAUI News, edited NAUI textbooks and conducted workshops on deep diving and buoyancy control.

Hendrick has served as an expert witness, writes a technical column for Scuba Times magazine and is currently an educational specialist with Lifeguard Systems, a company dedicated to diver rescue and diving safety.

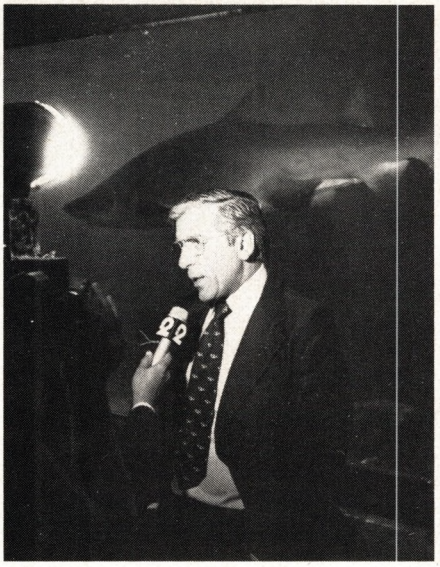
John Cronin/Distinguished Service: John Cronin has done much to improve the quality of scuba diving equipment and

Hyatt Regency "Opens" Grand Cayman
NICK'S aqua sports
The world's best diving, different reefs for every dive, fantastic underwater visibility.
Spectacular walls and grottos
Great shallow reefs
Lots of friendly fish
Dive on famous shipwrecks
Fabulous night diving
Underwater cameras and strobe rentals
Underwater video rentals and classes
Windsurfing and sailing rentals and lessons
Championship golf course and tennis courts
British colonial setting in lush tropical atmosphere
Waterfalls, jacuzzis, saunas and pools.
Learn To Dive Programs Made Easy
Spirit of Ppalu
Snorkel, swim, lunch and dinner aboard our futuristic 64′ catamaran
WRITE TODAY Nick's Aqua Sports Cayman
11601 Biscayne Blvd., Suite 200A
N. Miami, FL 33181
Name
Address
City State Zip
Phone
Vacation Dates



photo/Jack Bissell

Walt Hendrick, Sr./Sports/Education



photo/Dennis DeMello

George Ruggieri/Science

diver training. In the 1960s he served as Midwest sales representative for U.S. Divers. During that time he not only became the first salesperson in history to sell more than $1 million worth of diving equipment in a year, but also found time to teach scuba diving. In 1966, he became one of the co-founders of PADI.

In 1969, Cronin was transferred to California and became marketing director for U.S. Divers. In 1971 he was promoted to executive director (president). During this period he was responsible for the redesign of many of his company's products so they more closely fit the needs of American divers. Many of these same products served as early models for other companies and greatly influenced much of today's dive gear.

Even after becoming head of one of the world's largest diving equipment manufacturers, Cronin continued to devote his personal time to divers, serving as chief executive officer/chairman of PADI.

Robert L. Straight

• HOUSTON •



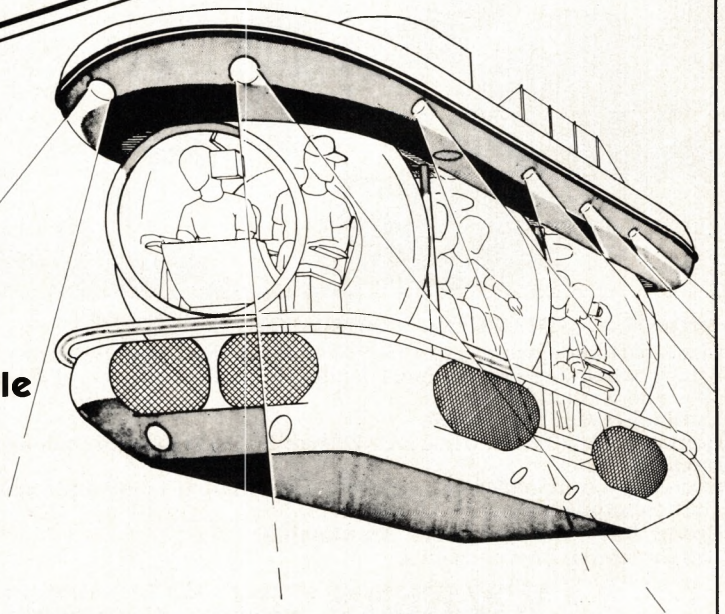
The Sea Symbols collections – exquisite jewelry in gold and silver by renowned artist Robert L. Straight

Catalog $2.00
8439 Barkley Dr., Houston TX 77017
(713) 643-4051

HYCO

Hyco Submersibles Ltd.

FOR THE SERIOUS BUYER



- 300 foot depth rating
- Choice of interiors
- ABS/Lloyds approved
- 6 passenger capacity
- Turn key package available

126 Garden Ave.
Lions Gate Business Park
North Vancouver, B.C.
Canada V7P 3H2
Telephone: (604) 980-5111
Telex: 04-352536 Hyco-Van

The $699 Cozumel Vacation.

It's less money and more fun than any other one.

The more-for-your-money, everything's-paid-for resort on Cozumel Island includes:

♦ *All you can eat* ♦ *All you can drink*
♦ *All our water sports, even scuba diving**
♦ *All the comforts of a Jr. Suite*
♦ *All the fun under our sun—and stars*
♦ *Round-trip air from Houston*
and more, in the 7 night/8 day price.

CONTINENTAL
The only airline worth flying.™

* *(certified divers)*

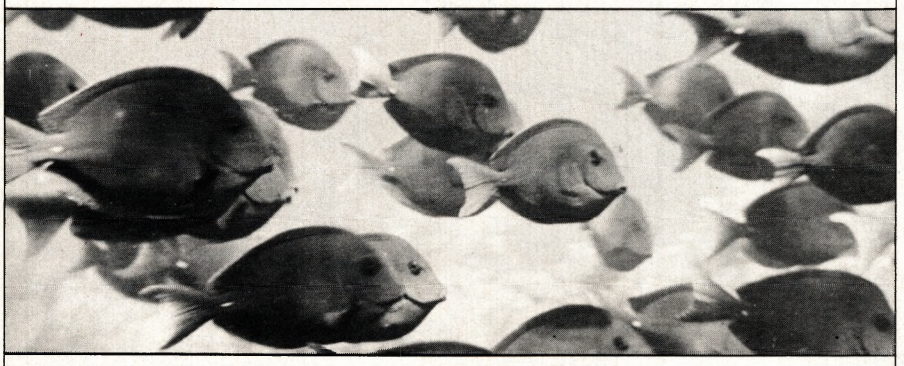
3 night/4 day Packages also
FEATURED AT YOUR TRAVEL AGENT

BARBACHANO
Tours Since 1923

CLUB Cozumel Caribe

U.S.A. Except Florida 1-800-327-2254 • Florida Only 1-800-231-1127

Nice and easy. Nice and close.



Small . . . private . . . one-resort island.

Close, safe and currentless gin-clear water of the Upper Bahamas Barrier Reef. An overwhelming profusion of friendly fish and colorful corals at numerous sites and various depths.
Undiscovered. Unspoiled.
Home of Aqualife, the world's ONLY marine aquarium fish hatchery and research center.
Superb accommodations, dining, deep water marina, tennis and secluded beaches. Just 45 minutes from Ft. Lauderdale.
Close. Safe. No problems. No hassles.
Call for special dive packages.

WALKER'S CAY HOTEL AND MARINA
ABACO, BAHAMAS

(305) 522-1469, U.S. Toll Free (800) 327-3714, Fla. Toll Free (800) 432-2092

Santa Cruz

MINE-SWEEPER

TEXT AND PHOTOGRAPHY BY DARREN DOUGLASS

The West Coast has never been noted for the type of stately, majestic shipwrecks found in the Caribbean, although there are many wreck sites. When a ship goes down in California waters, winter storms usually pulverize it into scrap metal quickly.

Indeed, many of our shipwrecks are simply chunks, hunks and pieces of something that used to float. But, resting on the bottom of Scorpion Anchorage off Santa Cruz Island is an old minesweeper, intact from bow to stern, in 60 feet of water. There are many hatchways and compartments for divers to swim through, offering some overhead obstructions and adventure. She sits upright in the sand, bow pointed seaward, extending an invitation of exploration to visiting divers.

Who is this noble lady of Santa Cruz? Where did she come from? How did she sink? To date, many different stories are



Switching roles, an U/W photographer poses next to the 'Sweeper off Santa Cruz.

told. To some, she is the *Peacock*, the *Spirit of America* or the *American Eagle*. To others, she is just the 'Sweeper. Like many sailors' legends and sea stories, her sinking is just as enigmatic. Some say she was sunk for a movie. Others claim she was beached for many years until some intrepid salvor attempted to bring her back to Ventura to convert her

into a private yacht. Allegedly she was towed out to 60 feet of water in Scorpion Anchorage and promptly sank. Her name? How she sank? Who knows? Who cares? What's really important is her existence. Because she is, without a doubt, the finest accumulation of submerged wood and iron found anywhere in Southern California.

Sitting in 60 feet of water on the sand bottom, her superstructure and bow are about 40 feet deep. The deck is rotting in many places. Her wooden hull is deteriorating. Her remains are home to a multitude of invertebrates, including what are—unofficially—the largest purple and orange Spanish shawl nudibranchs in the world. There is a menagerie of rockfish, anemones and octopus, making the wreck an alluring target for marine life enthusiasts as well.

For a diver descending on an anchorline, it is easy to determine the wreck's location by the swarms of blacksmith schooling over the hulk. On days with exceptional U/W visibility, the wreck can be viewed while snorkeling on the surface. Visibility ranges from 15 to 60 feet, and since Scorpion Anchorage is relatively well protected, surge is minimal or nonexistent. The great benefit of this wreck for divers is the almost always prevailing current that runs from bow to stern. Because of this, even when divers stir up the bottom, the current quickly sweeps all the sediment away.

On top of the wreck divers can swim over the iron beams that yield rotten planking and rusty nails. Many of these openings are large and allow easy entry and egress. The beams and ribbing along the upper decks make for dramatic photo backdrops as masses of fish swim through the old timbers. Part of the mast lies on the port side, the very top embedded in the sand. The bow is home to blacksmith, perch and bass. Divers should take a moment to drop to the sand and ponder the massive bow that sits upright with a slight list to port.

Inside the wreck there are many rusting iron fixtures, deteriorating planks and spider webs of rigging. These obstructions are easily negotiated. When sunlight streams through from burst seams and collapsed decking, divers can safely negotiate the hull without lines. A light is recommended for use in exploring the darker crevices and a sharp knife is essential for cutting monofilament fishing line snagged on the wreck.

Once inside the ship itself, one can experience the awe of true shipwreck diving. Fully penetrable wrecks are rare on the West Coast, and although the Santa Cruz Minesweeper is not a *Rhone* or *Hilma Hooker*, it certainly does offer great wreck diving opportunities. Starting in the rudder area, the diver ventures through a short hallway that opens into the first major compartment. Once-watertight doors are now open, rusted fast on their hinges. The green-gray interior of each compartment is highlighted by the sun-filled light bursting in from the openings on the upper deck.

There are two main penetrable areas forward: the chain locker and bow compartment. The wood inside this area is remarkably intact. Here, a light is absolutely necessary, as divers venturing inside will discover total darkness. Above, through several hatchways, divers can gain access to the upper deck. The ribbing is intact, but side panels have long since been claimed by the sea. Scores of fish congregate here, including calico bass.

Exactly who she is or how she really ended up at Scorpion Anchorage doesn't really matter. What is important is that she *is*. For experienced wreck divers, the Santa Cruz Minesweeper offers a great new dimension to California diving: a relatively intact wreck!

If you are one of those detail oriented, documentation freaks who has researched the dusty archives of maritime libraries and has the story of the 'Sweeper down to every nut, bolt and brass tack, please keep your discoveries to yourself for now. Don't spoil the intrigue for all of those peglegged old salts who love to spin sailor's yarns along old fog-filled seaside wharves. Please, don't wreck the fun!

DON'T
Dive Little Cayman
Aboard M/S Ports A Call.
DON'T
Call Poseidon —
Unless You're
Prepared To Be
Spoiled Forever.



Some promise new, sleek custom dive boats . . . We deliver comfort, reliability, experience, true gourmet dining with open bar, privacy and air-conditioned deluxe twin state rooms.

And, above all, your unlimited diving is among the finest reefs and walls in the Caribbean.

Weekly departures from $853.00 per person.

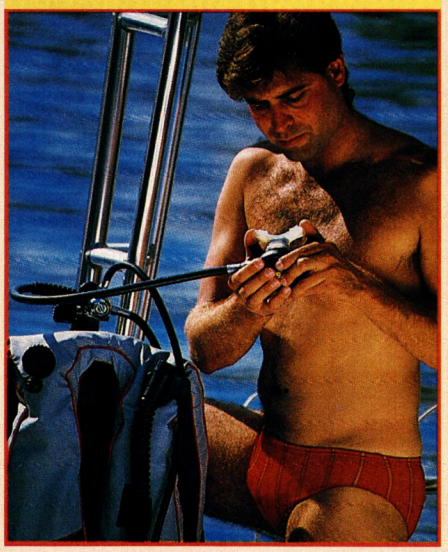
For fall specials or more information, call or write:

Poseidon Ventures Tours
359 San Miguel Drive, Newport Beach, CA 92660
(714) 644-5373 Toll Free (800) 854-9334
or 505 N. Belt, Suite 675, Houston, TX 77060 (713)820-3483

Prospect Promotions
(713) 541-0915

Divers Unlimited Instructor's Program





Divers Unlimited is the largest PADI instructor training school in the eastern half of the U.S. Its fleet of three boats includes the *Dolphin One* (top).

TEXT AND PHOTOGRAPHY BY STEVE LUCAS

There may be few things more gratifying than to be able to combine your avocation with your vocation. To make your play your work brings much personal satisfaction. Just ask the guy or gal who taught you to dive. There are few occupations more enjoyable than theirs.

If you have considered living in the Caribbean, escorting travel groups to exotic dive locations or owning your own retail dive store, becoming a dive instructor opens a lot of doors. With the current growth in diving, the need for qualified professionals has outpaced their availability. To get some answers on just what it takes to earn an instructor certification, SKIN DIVER recently asked Dave Inman, owner of Divers Unlimited in Fort Lauderdale, Florida, some of the questions we thought you might ask if you were about to look at a career in diving. Operator of the largest retail dive store in the United States and a popular Florida dive resort with three boats, Inman is also the director of the largest PADI instructor training school in the eastern half of the U.S. His school has a remarkably high reputation, near 100 percent, for helping to place graduates in prime positions.

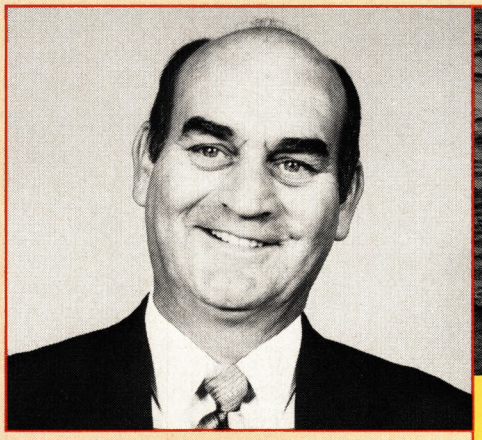
SDM: Advertisements for some courses claim you can become certified in only one week. How long should a candidate expect to train before beginning a career as a professional instructor?

Inman: Today there are some seven day testing programs, but there is a lot of training that leads up to those seven days. To teach diving right, candidates need a very strong rescue program, then a strong divemaster program where they get a good understanding of all the academics such as physics and physiology. Then they might be able to come to a seven or nine day testing program and demonstrate they know how to teach that information. We encourage candidates to complete our entire triad program, which is done over four weeks. The primary requirement is an advanced open water certification, which we can arrange for candidates to also earn here as a prep course before joining a triad program. The first instructor triad module is rescue training, where candidates are qualified in CPR and other necessary skills. After that, we go directly into divemaster training. Many who already hold that certification learn a lot more. Candidates are taught to fully understand the PADI system while actually assisting in teaching entry level classes and giving classroom, pool and open water presentations on which they are evaluated. They gain valuable experiences that will help them in the instructor training portions. We then go through two and one-half days of

comprehensive IDC [Instructor Development Course] preparation before they even enter the instructor training program. Finally, they go through an evaluation where they are strictly tested for certification as an instructor. All of the training, from rescue through instructor, is a learning and evaluation experience rather than simply a daily test. Our candidates learn in a relaxed and fun atmosphere. Only in the last two days are they really involved in testing.

SDM: How long has DU been running instructor programs?

Inman: We have been training instructors for 12 years—several hundred each year. We are the only Florida state licensed vocational training school for dive instructors. We have scheduled 12 triad programs for 1987. Also, we have a full time staff that doesn't do anything other than instructor training.



Dave Inman



Divers Unlimited's well equipped boats make diving a pleasure. For convenient access, they are berthed adjacent to the beachside classroom.

SDM: What does a person have to do in the way of preparation to become a dive instructor?

Inman: The first step is getting the right training at the rescue and divemaster level. This is where the real academics and skills are learned. These are not glory cards just to be added to your wallet, but serious courses that require a lot of knowledge, skill and dedication. You must have that strong background training in order to become a knowledgeable and professional instructor.

SDM: What kind of person does it take to make a good instructor?

Inman: The main thing is attitude. That and a desire to help others become involved in a sport for which they (the instructors) have strong feelings. The real enjoyment is in seeing a student's face after his/her first dive. If you can have fun teaching others to have fun, and you like being in the classroom, pool or water, you can become a good instructor.

SDM: How strenuous is the training?

Inman: Instruction isn't strenuous, it's fun. Instructors don't need to be Johnny Weismuller-type swimmers or macho.

SDM: For a long time, diving was mistakenly looked at as a macho, male dominated sport. Compared to five or six years ago, has the percentage of males to females changed?

Inman: Yes. Especially over the last two or three years, the percentage of women has gone up considerably. I don't know what that figure would be on a national level, but three or four years ago 20 percent of our instructor candidates were female. Today almost 35 percent are.

SDM: What are the opportunities for women as diving professionals?

Inman: A lot of the professional schools and stores teaching entry level classes prefer to have a balanced instructor staff. Female participation in the sport overall is growing at a much higher rate. Females often learn better and feel less intimidated when learning from another woman. The male students seem to like it, too.

SDM: What kind of environment does the instructor candidate learn in at DU?

Inman: Our classroom is right on the Fort Lauderdale Beach. Our pool is Olympic size and directly across the street. Our three boats are also berthed adjacent to our facility.

The training program is broken into thirds: one-third is in the classroom, one-third in the pool and one-third in the ocean. The environment in South Florida is very nice, primarily because the water temperature is higher on a year-round basis. We do a lot of our training on the coral reefs just off Fort Lauderdale in relatively clear, warm water. Here, a one-eighth inch suit, most of the time with short sleeves and legs, is quite sufficient.

SDM: How much of the training is fun and how much is skills demonstration?

Inman: We try to make the whole program a fun experience because that's what they are going to be doing when they leave here as instructors. They are going to go out and teach people how to a good time underwater. I can recall when I became an instructor that at the end of the program we were required to put all of our gear into a gunny sack and throw it into 50 feet of ocean water, swim down, assemble it, put it on and surface. You can see that macho routine has nothing to do with learning how to dive or being a good instructor. Our emphasis is on teaching you how to teach and be a successful professional instructor while enjoying yourself.

SDM: Does DU offer anything that some others don't?

Inman: One of the major things we offer is a free placement service for our graduates. All our triad program instructors qualify for it. Currently we know of more available jobs than we have candidates to fill. It's been that way for two or three years.

SDM: How many instructor positions are currently available?

Inman: The numbers I have seen recently indicate there are well in excess of 400 openings in the U.S. and around the tropical world.

SDM: Name some locations where these positions are available.

Inman: Literally all over the United States, including our own stores, Grand Cayman, Jamaica, Cozumel, Bonaire, the Hawaiian Islands and all the popular Caribbean dive destinations. In the Bahamas we know of openings in Bimini, Freeport and Nassau.

SDM: Do these employers indicate to you a preference on the type or length of training for potential employees?

Inman: Yes, some definitely do. We work closely with many major Caribbean dive operators and cruise lines that have dive and snorkel programs. Many give our graduates preferential treatment because they know they have been here for at least a month and have gone through some vigorous training as well as making a real commitment to diving.

SDM: What can a new instructor expect to earn?

Inman: That depends a lot on where they are going. Some of the islands, as well as the cruise lines, supply room and board. That has to be computed into the salary. Most openings we are aware of currently pay $12,000 to $20,000 per year. For highly qualified instructors, there are some even above that.

SDM: How can people interested in diving as a career get information on Divers Unlimited?

Inman; Call us directly at our Fort Lauderdale/Hollywood facility: (305) 981-0156. If they want to write, the address is 6023 Hollywood Boulevard, Hollywood, FL 33024. We have a whole packet of information including a self-administered written exam that will give them an indication of their current level of dive knowledge and readiness to enter the sport as a profession. Once they take the test and realize what they need to know, the really serious candidates recognize the importance of going through a complete training program.

Q.

Why are the PADI Instructor graduates trained at Divers Unlimited so valuable?

Ask those people who really know best:

RON KIPP
(PRESIDENT, RON KIPP'S BOB SOTO'S DIVING LTD.; GRAND CAYMAN)
A "I keep in touch with Divers Unlimited. Their instructor graduates are always at the top of our list when we are looking to add new members to our staff. Their top quality training makes them very valuable assets to our industry."

CINDY WILLY
(DU GRADUATE AND ASSISTANT ISLAND MANAGER; RUM CAY CLUB, BAHAMAS)
A "As a professional I chose DU specifically because I knew their program was geared to training dive professionals. It provided me with the exact tools I needed to expand my personal career."

JOHN ENGLANDER
(PRESIDENT, UNDERWATER EXPLORERS SOCIETY; FREEPORT, BAHAMAS)
A "When we look to hire new instructors, one of our sources is definitely Divers Unlimited. They have a good program; the graduates we have looked at are better trained, and therefore more desirable, than many of the other instructor colleges."

KAREN McCARTHY
(DU GRADUATE AND OWNER NEGRIL SCUBA CENTER, JAMAICA)
A "As an already busy island dive store owner I really needed my Instructor certification. I was able to complete it quickly and at my own schedule. The valuable DU training I received has substantially increased my business."

BILL MYERS
(DIRECTOR OF AQUATIC ACTIVITIES; ADMIRAL CRUISES, MIAMI, FL)
A "Admiral Cruises looks to Divers Unlimited for competent professional Instructors to implement our cruise ship watersports operation at our secluded Bahamian island of Little Stirrup Cay. They have always provided the caliber of Instructors that have been an asset to our program."

At **DIVERS UNLIMITED**, we begin a new PADI triad training program every month to take you from Rescue to Divemaster to Instructor. So take some advice from the top operators and dive instructors in the scuba industry. If you want to receive the very best Instructor training, or have positions that need to be filled with the best trained dive Instructors anywhere,

call us right now:

305/981-0156

PADI®

DIVERS Unlimited

6023 Hollywood Boulevard
Fort Lauderdale/Hollywood, FL 33024

ATTN. PADI INSTRUCTORS: You can get your PADI IDC Staff Instructor rating and the new PADI Medic First Aid Instructor Rating at Divers Unlimited.

COZUMEL • COZUMEL • COZUMEL

7 NIGHTS—6 DAYS DIVING

La Ceiba	*$475*
Bahia	*$355*
Barracuda	*$355*
Villa del Rey	*$335*

- **Hotel Accommodations**
- **Unlimited Beach Diving**
- **Unlimited Night Boat Dives**
- **Includes 15% Mexican Tax**

All prices shown are quoted per person, double occupancy.

Also Announcing Key Largo Luxury Resort Dive Vacations.

Dive Holidays International, Inc.

US 800/634-DIVE • Texas 713/359-DIVE

(CALL COLLECT FOR RESERVATIONS)

CALIFORNIA GOLD

The Dream Of Diving For Gold By The Raven Brothers In 1850 Still Beckons Hundreds Every Spring And Summer

BY LEE A. SILVA

I guess I ought to start by explaining how this article came to be. I'm a freelance writer now, but I once spent a lot of years as a sport, salvage and commercial abalone diver, along the Pacific Coast from Monterey to Acapulco. I'm also a native Californian whose ancestors on both sides of my family go back to miners, muleskinners and saloon keepers who worked the gold fields, some of them coming to California even before the great gold rush of 1848.

Since I specialize in writing about the history of the American West and California in particular, I acquired a rare journal, published in 1853 by an East Coast man who, like thousands of others, tried his luck searching for gold in California.

What is unique about this journal is it gives a vivid account of one of the first, if not *the* first, attempts to dive for gold in the chilly river waters of California's gold country. And so, I couldn't resist passing the story on to others interested in the history of diving.

The story is laughable, but also horrifying for breaking all the rules of common sense. Wherever possible, I have left in the flowery, jaded prose of the day in order to keep its 1800s flavor intact.

The story is narrated by Ralph Raven, who kept the journal. Owing to the writing style of those times, Ralph Raven neglects to mention minor details such as what town he and his brother, Tertium, are from and the exact date of their departure for California. He makes it clear, however, they are from a New England coastal town, probably Nantucket. Raven states that Tertium is 18 years old but never tells his own age, although he is probably in his early 20s.

With two friends, the Ravens sailed from the East Coast on the *Leucothea* after the first of February 1849. The planned four month journey around the horn to San Francisco took six months, with the ship dropping anchor in San Francisco Bay on August 27 or 28, 1849.



photos/courtesy of Los Angeles County Museum of Natural History

In spite of the tales of instant riches to be found in California, an empty gold pan was, more often than not, the end result of a day's hard labor for 49ers. This lack of results prompted the Raven brothers to try diving for gold in the American River in 1850.

Naively, Ralph and Tertium thought picking up solid gold nuggets in pastoral California would be like digging clams from the sand on their Atlantic seacoast.

Needless to say, their dreams of riches were quickly dashed by the harsh reality of fruitless toil along the already overworked and dug out riverbanks on the western slope of the Sierras.

They settled at Mormon Island, on the South Fork of the American River, not too far from Sutter's Mill. They quickly ran the gamut of methods then known trying to dig for gold. They even worked for other miners, earning as much as $8 per day, more than the amount they usually made from their own diggings.

Evidently, they were from a well-to-do family on the East Coast and never seriously in need of money, as most of the 49ers were. Even so, by the winter of 1849-1850, their dreams of making $1,000 per week in the gold fields were transformed into the hard realization that $100 to $200 per day was just for the lucky few, $20 per day was a reasonable expectation, and $5 per day each is what they would usually end up making.

They seemed content to rework diggings that had been thoroughly explored instead of striking out into less traveled territory. They spent the winter settling into a permanent camp to use as a base of operations for the spring and summer of 1850. They also learned to cope with the worst kinds of weather and to tolerate life in the wild, from roving grizzly bears to the miseries of poison oak.

After Thanksgiving 1849, Raven writes of a group of well-equipped miners that, "had brought with them various improved and scientific machines, and among them one for dredging in the bottom of the rivers, of which they seemed to have formed the same idea as myself."

He apparently spent the next two months stewing about all that untouchable underwater gold, for on January 20, 1850, he wrote, "It was but too evident



COZUMEL'S BEST ON THE BEACH

• Five Star Caribbean Hotel • Best beach diving on the island • Pool, spa, sauna, massage room, tennis court • Telephones & television in each room • Two bars, two restaurants • English spoken throughout hotel • Divers board boats directly at La Ceiba Pier • Safe, competent dive operation • Four dive boats • Five PADI Divemasters • American PADI Instructor • 10 Years showing divers the best Cozumel has to offer!

La Ceiba HOTEL

CONTINENTAL

"... it never rains on me in Cozumel, Mexico!"

$524.00 8 days & 7 nights
per person, dbl. occupancy

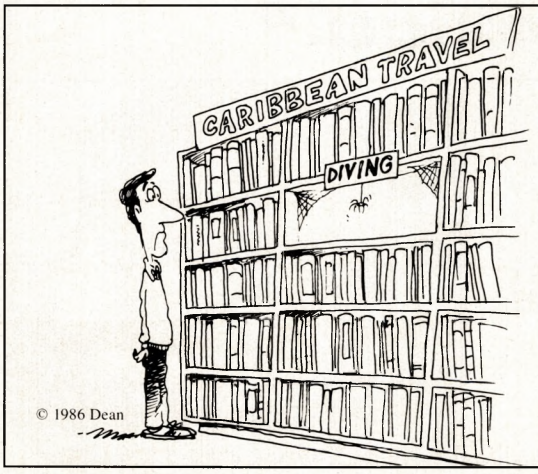
Package includes:
•6 two tank boat dives with lunch
•unlimited shore diving at the hotel beach
•15% Mexican Hotel tax included
•free use of tennis court (day or night)
•weights & belts with boat dives
•guide on boat dives
•for an additional charge, 7 breakfasts and dinners will be included.

(Air transportation can be arranged. Commissions to travel agents & dive industry are fully protected.)

Two Worlds Travel
1307 First St., Humble, TX 77338 1-800-446-2166
Texas residents call (713) 446-2166 collect for reservations only.



RIDING ROCK INN
San Salvador, Bahamas
DIVE OUR RENOWNED WALLS, GROTTOS AND REEFS
8 DAY 7 NIGHT PACKAGE INCLUDES:
• ACCOMMODATIONS • 3 MEALS DAILY • 3 BOAT DIVES PER DAY • UNLIMITED USE OF TENNIS COURTS • HOTEL TAXES AND GRATUITIES • AIRPORT TRANSFERS •
SPECIAL CHARTER FLIGHTS AVAILABLE EVERY SATURDAY FROM FT. LAUDERDALE
701 S.W. 48th Street, Ft. Lauderdale, Florida 33315
1-800-272-1492
Florida and Canada Call
1-305-761-1492



Planning a Caribbean dive trip? The DTG covers over 650 dive operators and accommodations in over 50 dive destinations. The DTG is also the official dive guide for the Bahamas, Aruba, Bonaire, Curacao, the French West Indies, Puerto Rico and Saba. All 268 pages for only $19.95. Available through your dive shop or send check to:

Divers' TravelGuide
2269 Chestnut, # 321
San Francisco, CA 94123

CALIFORNIA GOLD

that by the commonplace methods of mining we should never achieve that brilliant fortune our hopes had promised, and it was therefore incumbent upon us to strike out some bold and original plan of operations, which should at once declare our genius and secure its reward. If we could only get at the beds of the rivers without the slow, painful and uncertain process of damming, and lay our hand upon the riches that had been accumulating there for 100 generations, as the busy waters winnowed away the chaff, we should have nothing more to ask; but



Typical tools for riverbank mining in California in the early 1850s were buckets, hand operated cradle rockers and pans.

how to accomplish this important object was now the question."

Then his daydreams bear possible fruit as he goes on to write, "Our first thought was to convert a hogshead into a diving bell and invade the possessions of the river gods in this moving citadel; but the difficulties that beset the construction and use of such an awkward contrivance left no reasonable hope of success. I remembered to have read, years before, of some experiments made in the harbor of New York with a curious invention called a submarine armor, and from my recollection of its operation on that occasion it seemed exactly what was wanted for our present purpose. The more I thought of this project the more pleasing it became—doubt slowly gave way to hope and hope rapidly ripened into full assurance of success. So I sat down and wrote a letter with trembling fingers to a friend in New York, requesting him to send me out one of these fortunate dresses without delay.

"In the meantime, though with so brilliant a prospect before us, we continued to work on the island for the contemptable pittance I have mentioned ($5 per day) . . . ."

Like many more learned scientists before him, Raven was smart enough to realize the use of a homemade diving bell was nothing more than a paper fantasy. And, oblivious to the practical logistics of diving, he and his brother went on mining

blissfully while waiting for the arrival of their diving suit. And, with naive renewed hope, they followed their dreams of riches, joined by a third brother, St. John, in the beginning of February 1850.

While waiting for their submarine armor, the three brothers and their friends continued to work the banks of the South Fork by any and every means possible, but they learned averaging one-half ounce of gold per day each was about all they could expect.

As the weather got better, their impatience mounted and they began jumping from new claim to new claim, continuing to scrabble out a basic existence, thwarted in part because the river was swollen by rains and melting snows. Their mining endeavors were repeatedly flooded and two neighbor miners were buried in the collapse of a river embankment.

Finally, in the middle of April 1850, the Ravens decided to move their base camp to Georgetown, on the Middle Fork of the American River, where news of good diggings had mining going at a renewed pace. They settled at a spot called Ford's Bar and continued to buy and work claims. But, by the end of May, they faced the sad realization that even here the riverbanks had already been mined and the river was still too high to allow them to work untouched diggings.

Unexpectedly, Ralph Raven discovered someone else had visions of diving for gold, for the brothers were offered a chance to invest in a diving suit that had



A 49er uses a cradle rocker to sort gold from material dug out of a river bank. His helper carries the material in buckets.

evidently just arrived in California ahead of the one they had ordered.

Raven writes, "Early in June we at length obtained possession of one-fourth ownership of a submarine armor. We paid $325 for it, or nearly one-half our little capital; but such was my confidence in the success of our schemes that I parted with the money that had cost us so much labor without the least reluctance . . . . The remaining shares (in the suit of diving armor) were held by men at Big Bar, eight miles farther up the river; but, for the first scene of operations, they had selected a spot about three miles from Ford's, reported to be one of the richest on the Middle Fork.

HARD TALK ABOUT CAYMAN DIVE TRAVEL PRICES

YOU CAN NOW BUY CAYMAN ISLANDS DIVE PACKAGES WHOLESALE, DIRECT FROM THE SOURCE. NO MIDDLEMAN. COMPARE THESE MONEY SAVING PRICES.



VICTORIA HOUSE - UNBELIEVABLE $99
ELEGANT ECONOMY ON 7 MILE BEACH.
3 BEDROOM PENTHOUSE (6 PERSONS).
- 3 Nites only $99 P/P.
- 2 AM Dives, Unlimited Shore Diving.
- Only $149 Quad.
- Only $179 Dbl.
- **8 Days - 7 Nites, 6 AM Dives, 1 Nite Dive and Unlimited Shore Diving, Only $444 Double**
- 5 Nites, 4 AM Dives, 1 Nite Dive and Unlimited Shore Diving. Only $333 P/P Dbl.

PLANTATION VILLAGE - $399 TO $499/WEEK
7 MILE BEACH NEAR GEORGE TOWN.
EXQUISITELY APPOINTED VILLA S - 2 POOLS.
TENNIS - TV - SPA - PATIOS
- **6 AM Dives, 1 Nite Dive and Unlimited Shore Diving $499 P/P Double Occupancy**
- Quad $399 P/P.
- Upgrades: Oceanview + $30 WK
  Oceanview Deluxe + $50 WK
  Oceanfront Panorama + $65 WK

PAN-CAYMAN HOUSE - WITH AUTO FROM $222
10 BEACHFRONT UNITS CLOSE TO HOLIDAY INN.
LARGE L/R - BAR - SUNDECK - PATIO.
7 NITES/QUAD.
- 6 AM Dives, 1 Nite Dive, Unlimited Shore Diving. Only $499 P/P.
- 5 Nites Only $399 P/P.
- 3 Nites Only $222 P/P.
- Includes Standard Size Automobile.

LONDON HOUSE HONEYMOON SUITE PACKAGE WITH MOET CHANDON DRY CHAMPAGNE.
7 NITES.
- 6 AM Dives, 1 Nite Dive, Unlimited Shore Diving - $666 P/P Dbl.
- 5 Nites - $499.
- 3 Nites - $299.

TARQUYNN MANOR - FULL WEEK ONLY $422
2 B/R (4 PERSONS) VERY PRIVATE 7 MILE BEACH CONDO
POOL - GAMES ROOM - B.B.Q.
- 8 Days/7 Nites/6 Days of Diving Fun
- 6 AM Dives, 1 Nite Dive, Unlimited Shore Diving
- 5 Nites Only $299 P/P
- 4 Nites Only $199 P/P
- Nissan Sentra 5 Pax Car For Week - Only $40 P/P
- Upgrade to 2 B/R & Den Oceanfront - Only $9 P/P nitely.

DIVING BY BOB SOTO'S DIVING LTD.
Bob Soto's DIVING LTD.
- Beach Pick-Up.
- Large Boats - Small Numbers.
- Unlimited Shore Diving At SCUBA CENTER
- Upgrades To EDGE Double Wall and Direct North Wall Trips. ■ Group Specials. ■ PADI 5-Star Facility
- Sales - Service - Rentals

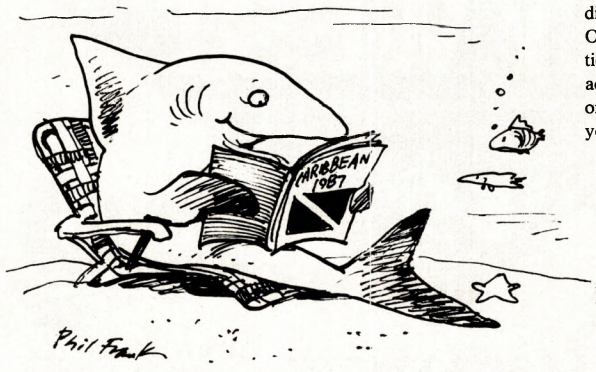
DOES NOT INCLUDE TAX AND GRATUITY PAYABLE UPON ARRIVAL.

CALL TOLL FREE FOR RESERVATIONS
1-800-262-7686

Cayman Condo Connection
P.O. BOX 1801-C GRAND CAYMAN, B.W.I.



The American Express® Card warmly welcomed at Bob Soto's Diving Ltd.



© 1986 Dean

Now you can have the ultimate dive guide for the entire Caribbean. Over 50 Caribbean dive destinations. Over 650 dive operators and accommodations. All 268 pages for only $19.95. Available through your dive shop or send check to:

Divers' TravelGuide
2269 Chestnut, # 321
San Francisco, CA 94123

DISCOVER OUR PENNEKAMP

with Capt. Slate's Atlantis Dive Center
and Howard Johnson's International Dive Resort

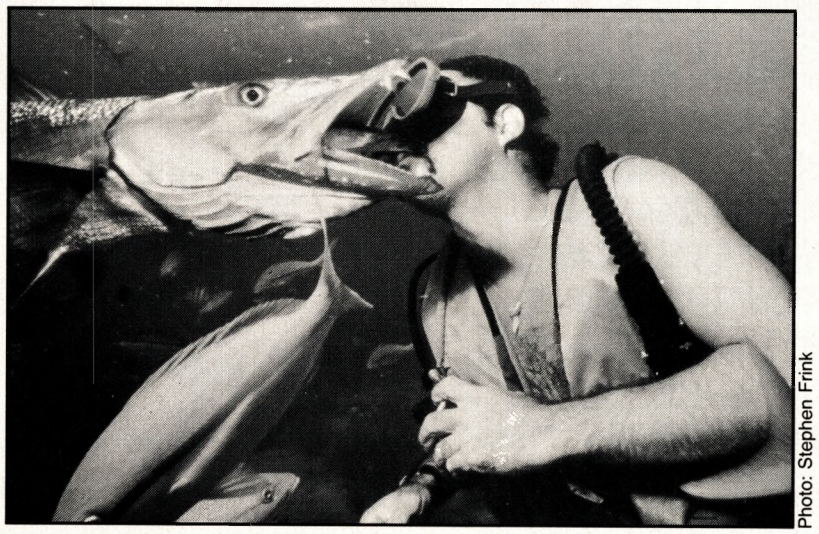


Photo: Stephen Frink

FLORIDA KEYS PREMIER DIVE FLEET
AND FULL SERVICE DIVE FACILITY

Dive Package $77
Per Person/Per Day Double Occupancy

Package includes:
- Full breakfast each morning
- Deluxe accommodations at Howard Johnson's
- 2 Tank dive trip w/Atlantis Dive Ctr. ea. day
- Tanks, air, backpack & weight belt

Watch Capt. Slate Feed His Pets

This pkg. avail. Jan. 5th-Apr. 30th 1987. Advance res./3 day min required
Package available May 1 through Dec. 15, 1987, at $65.00

5 Day Bonus Package
Pay for 4 Days Get 5th Day Free
weekdays only

Capt. Slate's Atlantis Dive Center, Inc.
Atlantis Dive Center
51 Garden Cove Dr.
Key Largo, FL 33037

HOWARD JOHNSON Lodge
1-800-654-2000
305-451-1400 Key Largo, FL

CALL TOLL FREE 1/800/331-DIVE
IN FLA. (305) 451-1325

"COME TO OUR ISLAND"

KEY WEST

One of America's favorite dive destinations
Great diving, restaurants, shopping,
attractions and night life

$59.00 Per Pers./ dbl. occ.
Including Tanks And Wts.



Key West
Pro Dive Shop
1605 Roosevelt Bl.
Key West, FL 33040

1-800-426-0707

Inn at the Wharf
2400 N. Roosevelt Bl.,
Key West, FL 33040

CALIFORNIA GOLD

"The distance from our camp (to the diving site) . . . was rendered truly formidable by the nature of the path that wound along the edge of the river, sometimes dipping beneath the surface and at others rising high on the shelvy face of the mountain, or over rocks where a single false step would precipitate the unwary traveler 100 feet down into the boiling current . . . . As these difficulties in effect greatly increased the distance (from the camp to the diving site), and would render it impossible for the one who assisted in working the armor to return (to camp) more often than once a week, it became a question of considerable importance on which of us the lot should fall. The difficulty was removed, however, by St. John's offering himself for this enterprise, which not only far exceeded our apprehensions, but proved to be the most stirring episode in the whole course of our adventures (in California)."



The Raven brothers' camp probably resembled this one—rugged accommodations endured in hopes of striking it rich.



This early 1850s photo shows California gold miners using a Long Tom sluice box to wash gold from a rocky river bank.

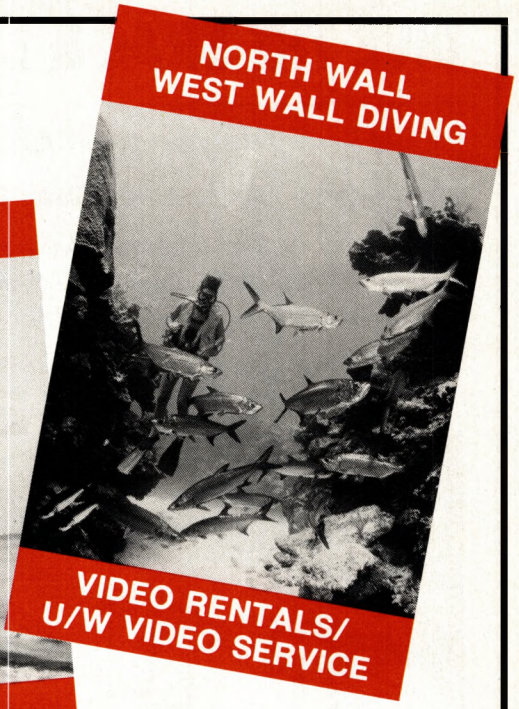
Raven does not explain why the brothers did not move their camp to the diving site so all three of them could work on the experiment. But perhaps, even though their expectations were high about diving for gold, they felt the need to keep on working in the more conventional manner, too.

In his opening account of the attempt to

Surfside

Grand Cayman's only complete diving and watersports center.





SWL
surfside watersports ltd.

. . . more than just a diving vacation!



St. Eustatius
Netherlands Antilles

- WRECKS/ARCHAEOLOGICAL DIVING
- VIRGIN REEFS/DROP OFFS
- STATIA-SABA SPLIT ISLAND PACKAGE
- U/W VIDEO SERVICE & RENTAL
- LIVE-ABOARD BOAT PACKAGES
- HISTORY–UNDERWATER & LAND
- SCENIC

High Season
$577 diver
$317 non-diver

Low Season
$510 diver
$270 non-diver



Prices for 8 day/7 night package, per person, dbl. occ.

surfside watersports ltd.
FOR MORE INFORMATION

Surfside Watersports Ltd., U.S. Sales Office, 1838-40 N. Main Ave., Scranton, PA 18508

TOLL FREE 1-800-468-1708 IN PA 1-717-346-6382

DIVE THE BRAC & LITTLE CAYMAN

DIVE: With Winston McDermott
STAY: At the new Brac Reef Beach Resort
FLY: On Cayman Airways 727 Jet Service or their new 30 Passenger . . . SHORTS 330

To announce Cayman Airways new Brac service, Brac Reef Beach Resort has introduced super summer saver prices.



Divers all inclusive pkg:
- Round trip air fare on Cayman Airways from Miami or Tampa
- Airport transfers on Cayman Brac
- Welcome cocktail
- A/C oceanfront deluxe room
- Unlimited alcoholic beverages
- All meals included
- 2 tank a.m. boat dive each full day, or if weather permits, we will take you to dive Bloody Bay Wall at Little Cayman

$499

- Unlimited air for shore diving
- We will provide transportation at 3 p.m. daily to a shore dive site
- All room taxes and gratuities
- 4 days, 3 nights per person dbl. occ. including all of the above

U.S. 1-800-327-3835 • FL 1-800-233-8880

AX, MC, Visa accepted Effective dates: 4/3-7/3, 87; 8/31-11/20, 87; 11/30-12/18, 87

BRAC REEF BEACH RESORT

Brac Reef Beach Resort
USA Office, P.O. Box 72279, Tampa, FL 33602

Cayman Airways

MOVING?

DON'T MISS A SINGLE ISSUE OF SKIN DIVER
Let us know your new address right away. Attach an old mailing label in the space provided and print your new address where indicated.
QUESTION ABOUT YOUR SUBSCRIPTION?
When you write, be sure to include a label. It helps us serve you more promptly.
TO SUBSCRIBE OR EXTEND YOUR SUBSCRIPTION-
Check the appropriate boxes below:
☐ New subscription. Please allow 4-8 weeks for your first copy to be mailed. ☐ Renewal subscription. Please include a current address label to insure prompt and proper extension.
☐ 1-year $13.94. This rate limited to the U.S.A. and its Possessions. ☐ Payment enclosed or ☐ Bill me.

MAIL TO: SKIN DIVER
6725 Sunset Blvd., P.O. Box 3295, Los Angeles, CA 90078

Name _____
Address _____
City _____ State _____ Zip _____

ATTACH LABEL HERE

(If label is not handy, print OLD address in this space.)

CALIFORNIA GOLD

use the diving suit, Raven lets his fancy get the best of him, comparing his brother St. John to a squire who is accompanying a medieval knight, the knight being, in reality, a 49er named Ethan Allen, who is the representative of the other shareholders in the suit of diving armor.

Raven writes, "One glowing summer's day, in the pleasant month of June, two travelers might have been seen slowly winding along the narrow path that led from Ford's Bar, on the Middle Fork of the American River, to Big Bar, eight miles above. It needed but a glance at the



photo/Lee A. Silva

A lucky miner with a pan full of gold nuggets. Note the shadow of the early camera in the foreground. Few miners did so well.

arms and equipment of the first (this would be Allen), to see he was a knight of distinguished rank, who was now, doubtless, wandering over the world in search of adventure . . . . His helmet, which he carried slung over his left shoulder, was of very unusual dimensions, and apparently made of burnished copper, that fairly dazzled the eyes of the beholder as it glinted back the rays of the morning sun . . . .

"The squire (St. John), who according to the custom of the time, walked a few paces in the rear, carried, with no little difficulty, the remainder of his master's armor. It consisted of a puzzling pair of large brass tubes, somewhat in shape resembling an opera glass . . . . The squire carried this implement . . . on his shoulders . . . ." At this point, St. John takes over the narration in the first person: "I had the honor of being his (Allen's) hum-

(Continued on Page 134)

SURFSIDE

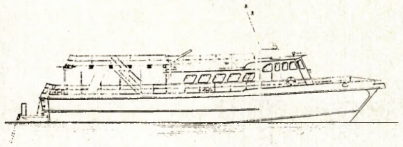
EXPLORER

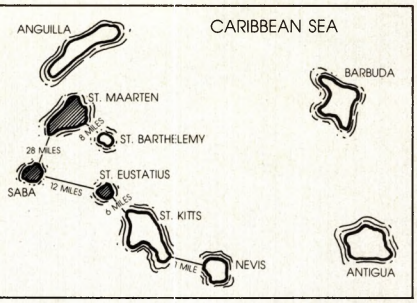
Introducing the New "Explorer" the "SURFSIDE EXPLORER"

OPERATING IN THE EASTERN CARIBBEAN

ST. MAARTEN-STATIA-SABA

Your Choice of Numerous Island Destinations





THE ALL-NEW SURFSIDE EXPLORER OFFERS . . .

- Unlimited diving in truly untouched locations which offer an extraordinary combination of historic shipwrecks, coral reefs, fabulous walls and pinnacles and incredible marine life.
- Dive and visit a number of island destinations only a short distance from one another. Daily island access to explore, shop or dine by way of large inflatable zodiacs.
- Everything that you have come to expect from Surfside; modern convenient dive facilities and services—E-6 processing lab—u/w video services—watersports—complete instruction.
- Luxurious air-conditioned private staterooms with double and single berths—freshwater showers—great food—sun deck—barbeque grills—lounge.
- Convenient departures and returns through St. Maarten. Available for dive shop, group or individual charters.

St. Eustatius (Statia), SABA and St. Maarten of the Netherlands Antilles beneath the surface, have something in common: They offer some of the finest diving in the world. (Richard Bangs, American Way magazine, Dec. 1986)

Dive into history; St. Eustatius is someplace special; a place where the Maritime history is so thick you can touch it. "Put simply, "St. Eustatius is a traveling divers dream come true." (Skin Diver magazine, April 1986)

SABA's legendary walls and pinnacles are second to none with marine life to match. A magical island if ever there was one. Designated as a protected marine park by the government of the Dutch Antilles.

For Information, brochures and reservations call or write:

1-800-468-1708
(in PA 717-346-6382)
Surfside U.S.A. Sales Office
1838-40 N. Main Avenue
Scranton, PA 18508

OR

1-800-348-9778
(415-434-3400)
See & Sea Travel Svc.
50 Francisco St.
Suite 205
San Francisco, CA 94133

SWL
surfside watersports ltd.

For much more than just a diving vacation...





The Buccaneer resort and Caribbean Sea Adventures combine to offer discriminating guests a perfect dive/lodging combination in the "American paradise" of St. Croix, U.S. Virgin Islands. Clockwise from left: Entrance to The Buccaneer; a diver and sponges at The Stacks site; CSA's dive boats *Phoenix* and *Deliverance*.



ST. CROIX DIVE COMBO

TEXT AND PHOTOGRAPHY BY GREG JOHNSTON

In the early morning sunlight, the humid air from the previous evening's rainfall saturates the atmosphere. The just-washed smell of wood, pitch and concrete steams in the warm sun. From the terrace of The Buccaneer, I watch as the dazzling sunlight pours over the tiny town of Christiansted. The welcoming rays cast a warm glow over the bright pastel buildings with red roofs, while large coconut palms throw long shadows over the many gift shops and restaurants that line the cobblestone streets. Nearby, there is the sweet smell of breakfast being prepared. It is morning in St. Croix and the start of another day in paradise.

St. Croix is the largest of the more than 100 clustered islands, islets and cays that form the United States Virgin Islands. It is about 1,200 miles southeast of Miami and less than 60 miles from Puerto Rico.

The two centers of commerce on St. Croix are the cities of Frederiksted on the west coast and Christiansted on the north coast. Christiansted is the capital of St. Croix and one of the prettiest cities in the Caribbean. Built on the ironshore of the leeward side of the island, Christiansted's harbor is filled with brightly colored sailboats and backdropped by gently sloping, verdant mountains.

Two miles east of Christiansted, high on a bluff overlooking the town, is a luxury resort. Mediterranean in style and elegance, The Buccaneer is the kind of vacation resort of which island dreams are made. Originally built as a sugar plantation in 1653, the main house no longer exists. Only a few of the old block houses and the ruins of the large windmill remain as a reminder of an era past.

The hotel was built in 1947 and was designed in a tier-stepped configuration allowing each of the rooms a seaside view. Painted bright pink, The Buccaneer is a stark contrast to the surrounding emerald hills, but melts beautifully into the halo of the azure blue sky above. The hotel is surrounded by an 18 hole championship golf course and its neatly manicured grounds are spread out over 240 acres of rolling hills. Each of the rooms has a private balcony and is fully air-conditioned. At night the view from your room is incredible! As the sun sets over the mountains, the harbor glows; the balcony

view is a panorama of the twinkling lights of Christiansted.

From the main building, halfway down the hillside, are eight championship tennis courts and a full pro sports shop. Additionally, there is a freshwater pool, several private beaches, a shopping arcade, island tours and first run movies. Social events are planned throughout the week.

A few steps away from the main hotel are the beachside cottages and family units. There is a fine selection of eateries on the premises. These include the elegant Brass Parrot, the casual beachfront Little Mermaid Restaurant and the informal Terrace Restaurant and Bar, the center for nighttime activities. Despite The Buccaneer's appearance as a playground for the rich and famous, this self-contained resort caters to the discriminating diver and those who enjoy class.

The U/W seascape of St. Croix is in keeping with the geology of the region. From gently sloping coral mounds to steep, jagged drop-offs, there is something for everyone. The Buccaneer and Caribbean Sea Adventures, St. Croix's oldest and most experienced dive operation, offer an exciting package.

Caribbean Sea Adventures is owned and operated by Larry and Ginny Angus. Meeting Larry for the first time is a little like seeing an old friend: Conversation is easy. Formerly from Canada, Larry and Ginny have been on the island for more than 20 years. Their fine reputation and knowledge of the fringing reefs guarantee great diving every day of the year.

With a staff of 25, Larry operates two dive shops in downtown Christiansted, three satellite beach operations at different hotels and a large fleet of watersport craft including five custom dive boats and assorted fishing boats and sailboats.

Larry and his staff at CSA generally operate two daily dive trips aboard the 40 foot custom *Deliverance* or the 42 foot custom *Phoenix*. The morning trip departs The Buccaneer pier and consists of two one tank dives at different locations. The afternoon trip is a single tank dive at another location. Night diving is scheduled several times a week, depending upon demand, and an excursion to the Frederiksted pier is usually arranged. The pier is famous for its seahorses.

Larry and his staff have discovered and catalogued more than 50 excellent dive sites around the island. One of Larry's favorites is only a few minutes from The Buccaneer dock. Green Cay Slope is a fascinating array of coral fingers that cascades from 35 feet of water into more than 100. This reef, well known for its pufferfish, offers the first time visitor a view of huge elkhorn and brain corals and healthy patches of staghorn.

At Gentle Winds, the undulating coral ridges are covered in magnificent hues of soft corals and encrusting sponges. Gently sloping seaward, the reef is abruptly interrupted by a sheer wall that starts as shallow as 35 and drops vertically to a sandy plateau at 85 feet. The wall is covered with forests of gorgonians and macro subjects. At Salt River Wall, the coral precipice drops into several thousand feet of water. The wall is deeply marked with crevices and overhangs. Large purple and yellow tube sponges grow profusely along the wall.

The Stacks is also one of Larry's favorite dives, and after visiting the site, I have to claim it as one of mine. The coral reef runs perpendicular to shore in the 40 to 65 foot depth range. Deep valleys of sand accent the large coral mounds and mini walls. Large populations of schooling fish can be found here and often sea turtles and eagle rays can be found cruising overhead. There are many dive sites to choose from, but space limits our description. However, some of the more popular sites you will want to check out for yourself are: Shark Alley, Grapetree Caves, Scotch Bank, Cane Bay Wall and Buck Island National Park.

Pan American flies directly into St. Croix from Miami and New York—daily—from points originating elsewhere in the U.S. and Canada. With so much to see and do on St. Croix, a week's stay will never be enough. Since the Virgin Islands is a U.S. territory, there are no customs or immigration. Maybe that's why they call it the "American paradise."

For more information on airline flights call Donna Comito at Pan Am collect: (809) 778-9040. For hotel reservations contact Ralph Locke, The Buccaneer, 315 East 72nd St., New York, NY 10021 or call (800) 223-1108 or in New York (212) 586-3070. For diving information and package rates contact Larry Angus, Caribbean Sea Adventures, P.O. Box 3015, Christiansted, St. Croix, USVI 00821 or call (809) 773-5922.

Buccaneer Hotel And CSA Produce The Perfect Scuba Vacation Package









Top: With the experience of 20 years on St. Croix, Larry and Ginny Angus, owners of Caribbean Sea Adventures, offer great diving every day of the year. Above: A silhouetted diver above a tall growth of sponge at Salt River Wall; Kathryn Johnston at The Stacks. Left: Guests enjoy The Buccaneer's championship golf course.



From the Virgin Islands' most colorful coral walls to the richly defined arches of a classically inspired hideaway, Caribbean Sea Adventures and The Buccaneer Hotel offer a most exciting combination.

If your idea of the perfect diving vacation includes sun drenched beaches, superb dining, luxurious accommodations, golf, tennis, and all the watersports you can imagine, experience our wall to wall excellence. For complete information on our vacation packages see your travel agent or contact **RALPH LOCKE**, 315 E. 72nd St., New York, New York 10021. Phone toll free with the number below or in New York State call (212) 586-3070.

EVERYTHING YOU'VE COME TO EXPECT

CARIBBEAN SEA ADVENTURES at The Buccaneer

ST. CROIX, U.S. VIRGIN ISLANDS

1-800-223-1108

call toll free

Discover Venezuela

8 Day–7 Night package

$765

SEA VENTURES
144 Railroad Ave., Ste. 204
Edmonds, WA 98020
(206) 778-7622

VIASA



"The country in the Caribbean"

- Round-trip air from Miami
- Air-conditioned, ocean view room
- 2 boat dives daily, 1 night dive
- Tanks, backpacks and weightbelts
- Lunch on dive days
- Transfers, baggage handling
- Complimentary tennis and swimming pool
- Commissions fully protected to dive and travel industry

GROUP RATES

CALIFORNIA GOLD

(Continued from Page 130)

ble companion, and the deadly mischief on my aching shoulders was neither more nor less than the ponderous air pumps that were to furnish a substitute for gills in our proposed aquatic incursions . . . ."

St. John then picks up the narrative after the arrival at the diving site of several representatives of the other shareholders in the suit of diving armor, writing, " . . . we at once set about making the necessary preparations for putting the machine (the diving suit and its air pump) in operation.



This 1850s era California mining scene is typical of what the Raven brothers must have experienced almost every day.

"From 100-200 pounds of shot were required to overcome the buoyancy of the armor; and as this could not be obtained nearer than Coloma, Allen started alone on this errand, leaving to the rest of us the work of constructing a raft. Incredible as it may seem, the preliminary operations necessary to this simple undertaking occupied us one whole week . . . ."

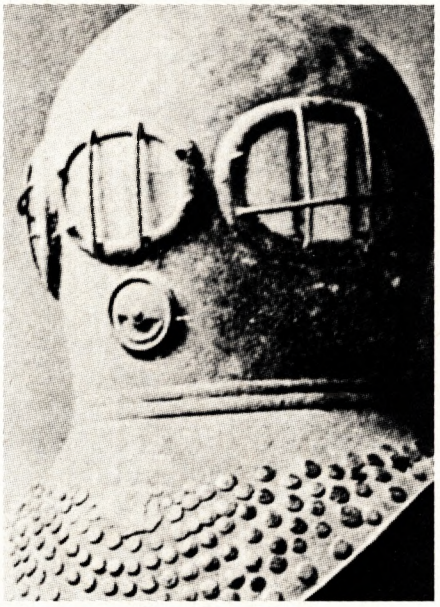
A comedy of errors now began, with the diving expedition spending days climbing up and down mountainsides to cut trees for a raft, only to find the fresh green logs sank instead of floated. Working in blistering 105°F summer heat, the men eventually found dead logs to use for their raft, and St. John's narration of the episode continues:

"On fastening our logs together by wooden bolts and ropes of bark, we found the raft thus constructed altogether inadequate to sustain the necessary weight consisting of four men, the armor weighing about 100 pounds, and nearly double that quantity of shot; but by means of ropes attached to the outer corners, and made fast to rocks, we made it sufficiently buoyant to answer for the first experiment; and our impatience would not admit of any longer delay.

"As none of our company felt willing to play the part of diver, we hired for that purpose a man who had already been down in one of the 'masheens' at home, and now gladly embraced the opportunity of making somewhat higher wages than

he had been in the habit of receiving. It was not a little curious and amusing to watch the operations of his toilet while preparing for the descent—seldom is the proudest belle while being dressed for a ball waited upon by more zealous and obsequious attendants . . . .

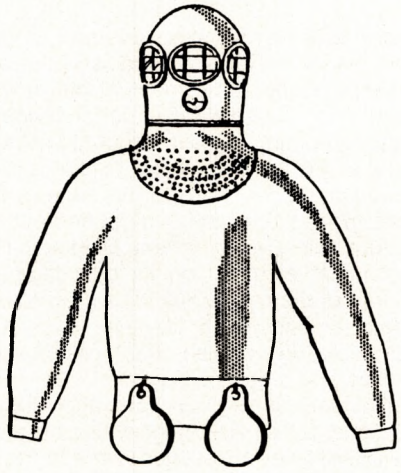
"Our nabob, divested of all but shirt and pantaloons, seated himself on a stone, while two of his ready servitors pulled on his boots and breeches all in one—a suit of genteel black, very wide at the hips, and having a copper ring around the waist. We next arrayed his



photo/Robert F. Marx

August Siebe's first diving helmet invented in 1819. This evolved into the hard-hat outfit used by many divers today.

highmightiness in a close jacket of the same fashion, with a second copper ring at the bottom, and at the top a monstrous copper basin somewhat larger than a water bucket, within which his head seemed to have shrunk away like a dried filbert in its shell. He looked out through two glass



photo/Pierre and Jean Rivoire

This illustration shows August Siebe's first "open" diving dress (circa 1819). Note the weights attached to the waist of the suit.



Anse Chastanet

Come dive with us beneath the breathtaking twin peaks of St. Lucia's pitons. A tropical forest forms the backdrop to Anse Chastanet. Located in the middle of a 400 acre estate on a long soft sand secluded beach, Anse Chastanet...Truly one of the Caribbean's top resort settings.

1-800-328-5285

Boat Diving • Walk-In-Diving • Night Diving • Dive Packages • Group Rates • Certification Courses • PADI Training Facility • Windsurfing • Mini-Sailing • Island Tours • Tennis • Plantation Tours • Two Restaurants • Two Bars • Shopping By Dug-Out Canoe • Tropical Forest Walks • Mountain Climbing • Birdwatching • Red Hot Live Volcano • Camilla's Voodoo • Mineral Baths • Hot Waterfall • 37 Foot Sailboat •

St. Lucia

IN CANADA CALL 416-960-0710
IN MINNESOTA CALL 612-544-7168
715 Florida Avenue South, Suite 201
Minneapolis, MN 55426

How to buy your Caribbean island home



Nevis: Luxury villa with breathtaking view



St. Martin: Small hotel for sale on sandy beach



Private islands from $55,000 . . .



Carriacou: 2 br, beautiful, a bargain at $65,000

A villa, condo, land or business of your own can put you in paradise and be a sound investment, too. Here's how we can help:

If you've ever thought of owning a tropical island home for investment, retirement or vacation use, **Island Properties Report** is for you.

Each issue focuses on a single island in the Caribbean, the Bahamas and beyond — reports on politics, the economy, tax laws, schools, hospitals, living costs — what to look for *and look out for* — what it's really like to live there.

PLUS PAGES OF LISTINGS: villas, condos, private islands, land, businesses for sale. PLUS region-wide **Quarterly Reports** on little-known investment opportunities, island living, island books at discount, how American ex-pats are "living their dreams." PLUS **Travel Savings** on air, hotels, etc. Satisfaction guaranteed or full refund.

FREE: Subscribe now and receive Hammond Map of the Carribbean plus 3 Bonus Reports on Maximizing Rental Income; Effects of Tax Reform Act; Career Opportunities in the Islands — **all free.**

☐ Enroll me for one year (12 issues) for only $39.00. Include my FREE bonuses.
☐ Payment enclosed. ☐ Charge my ( ) Diner's ( ) MC ( ) Visa (include card no. and expiration date)

Name _____

Address _____

_____ Zip _____

☐ Send further information. Enclosed is $1.00.

Island Properties Report

Box 58SD4 Rte. 4, Woodstock, VT 05091
Credit Card Phone Orders: (802) 457-3734

TOP DIVE

THE BAY ISLANDS
50 SPECTACULAR DIVE SITES
(AND WE'VE JUST BEGUN TO EXPLORE)



- 42′ diesel dive boat
- 36′ diesel dive boat
- 25′ dive boat
- 50 CFM compressor
- 20 CFM compressor
- 30,000 cf ft. air storage
- Freshwater swimming pool
- Photo center

WALLS PINNACLES RIDGES CAVES VOLCANOES BIG FISH

Imagine an island . . .
of pineclad mountains and lazy white sand beaches fringed with palms; a lost island, where orchids grow wild and freshwater streams from natural mountain springs, a peaceful island surrounded by an unexplored barrier reef, cooled by a soft breeze and washed by a sapphire sea.

"Mother nature at her best!"
This is Guanaja, where the Inn of the Sun is home to divers, sun worshippers and nature lovers alike. The Inn of the Sun is a Spanish Villa set at the base of the foothills of the mountains on 62 acres of oceanfront tropical greenery. The resort features dining room, bar, dive shop, freshwater swimming pool, tennis court and an exercise room. All of our rooms have oceanfront views.

You'll agree it's **Top Dive.**
Be our guest. You'll enjoy our facility and the fine food prepared by our proud chef, and we'll give you personal service you won't forget. Come dive with us. Whether you like "aquarium" dives or swimming through caves and grottoes of colorful coral or the adventure of a big fish encounter. **We will please you.**

FOR RESERVATIONS OR INFORMATION

POSADA DEL SOL

P.O. BOX 537, Boca Raton, FL 33429
800/642-DIVE or 305/994-6232

INN OF THE SUN GUANAJA BAY ISLANDS POSADA DEL SOL

BUCCANEER'S INN-CAYMAN BRAC

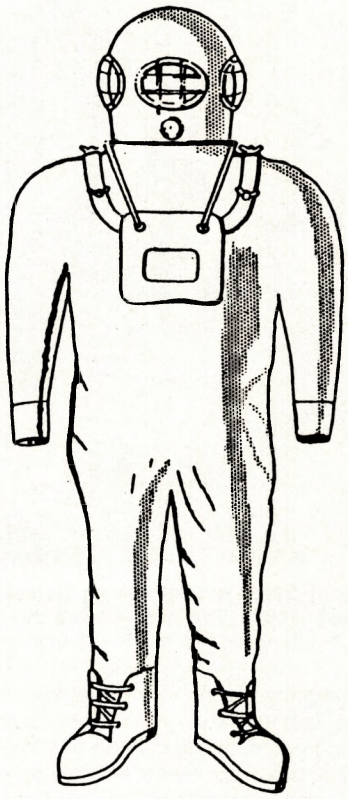
• Unlimited Day and Night Shore Dives Off Buccaneer's Inn • Morning Two-Tank Boat Dives • Afternoon Unlimited Shore Dives • Little Cayman Dive Trips • Clean, Comfortable, Air-Conditioned Rooms With Private Bath • Seaside Thatch Roof Bar, Dances, Saltwater Swimming Pool, Gift Shop, Bicycle, Moped and Car Rentals, Guest Laundry • Friendly, Personal Service • Dive with Winston McDermot, Brac Aquatics.

US $201.00 per person 4 days/3 nights.

BUCCANEER'S INN, P.O. Box 68, Cayman Brac, Cayman Islands, British West Indies
Phone 1-809-948-7257 or 1-800-535-9968

eyes having that lidless stare peculiar to the sculpin, and there was a still larger window opposite his mouth, opening by a screw in order to give him air while he was dressing.

"The jacket and trousers were screwed firmly together by means of the two copper rings—the bags of shot and



photo/Pierre and Jean Rivoire

This illustration shows Siebe's first closed diving dress (1837). The Raven brothers probably used a similar suit in 1850.

sand tied over his shoulders and around his waist—the visor closed, and the air-pumps at the same moment put in motion. A long hose of India rubber connected the pumps with the top of his helmet, and as the unwieldy figure rose to its feet and waddled forward to the edge of the raft, while the inrushing air puffed out his flabby skin to its full extent, he looked like an infant elephant on its hind legs, or some of the monstrous idols of heathendom, among which, however, he would certainly have carried off the palm for ugliness. He was not like most other amphibious animals, awkward and clumsy on land, but all alert in the water; his awkwardness never deserted him and the ridiculous splash, it could hardly be called a plunge, with which he settled into what seemed a more congenial element, reminded me of nothing so much as Ma'am

Bridges sitting unexpectedly down in her own washtub.

"After he had been gone some ten minutes, and no signal twitch had been given at the cord provided for that purpose, we began to look at each other with a mysterious sort of dread and debated the expediency of pulling him up. My own position at the pumps prevented me from taking any more active part, but I did my best to induce my companions to haul him in without further delay and they at length yielded to my expostulations. But, to our infinite consternation, we now found all our strength unable to move him from the bottom; and crying out, all at once, to a party of miners on the opposite bank, two of them came in a canoe to our assistance and by pulling directly over the spot where the river lay, succeeded in bringing him to the surface.



photo/Lee A. Silva

This 1913 diver wears a variation of Siebe's diving suit—not much different from that used by the Raven brothers.

"We drew him hastily to the shore and opening the visor saw, within the depths of the helmet, a countenance paler than that of Ivanhoe when he fainted in the very presence of the Queen of Love and Beauty, at the gentle and famous passage of arms at Ashby de la Zouche. Long after his (the diver's) armor had been removed, he still lay apparently lifeless and it was an hour before he could give us any account of his misfortune. He then told us that walking along the bottom he had suddenly stepped into a hole behind a rock and was having the best time he ever had in his life, when all at once he fell asleep.

"He was not in the least disturbed by the imminent danger he had escaped so narrowly, and declared his readiness to make a second trial, if a place could be found free from rocks, and where the water was sufficiently clear for us to see him from the surface.

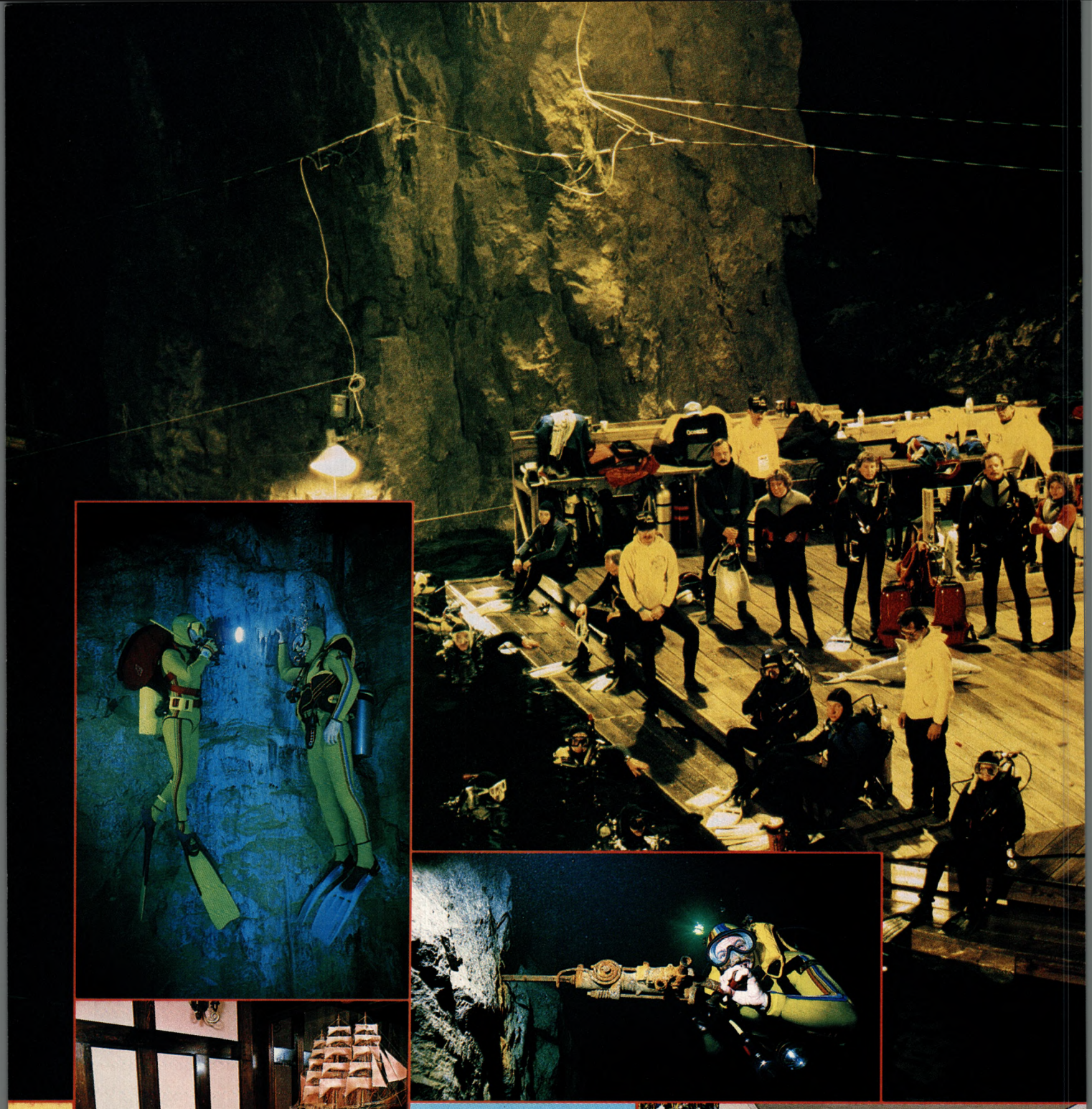
"As no such place was to be found in that vicinity, all our previous labor went for nothing; we abandoned our raft and moved several miles farther up the river to a spot not far below Big Bar; and said in the high flown language of the miners to contain a cartload of gold.

"The sand bags proving quite unfit for the purpose, Allen again set off in search

(Continued on Page 141)









Top: Eager divers gear up on the huge main dock at the Billion Gallon Lake Resort. Clockwise from left: Eleanor Klein relaxes in the elegant Mansion Hill Country Inn; diver portrait at Cal Falls; Doug Goergens poses with a jackhammer; four poster beds at the Mansion Hill Country Inn.



Bonne Terre

Missouri's Billion Gallon Lake Resort

TEXT AND PHOTOGRAPHY BY MARK M. LAWRENCE

It's going to surprise many people to learn that Bonne Terre, Missouri has the most intriguing dive destination in the continental United States. West End Diving Centers' Billion Gallon Lake Resort and the Mansion Hill Country Inn fit together to offer North American divers one of the greatest weekend getaway packages. For three days you spend your time touring the unique freshwater world of the Billion Gallon Lake Resort and pass your evenings wining and dining in the turn of the century ambiance of the Mansion Hill Country Inn.

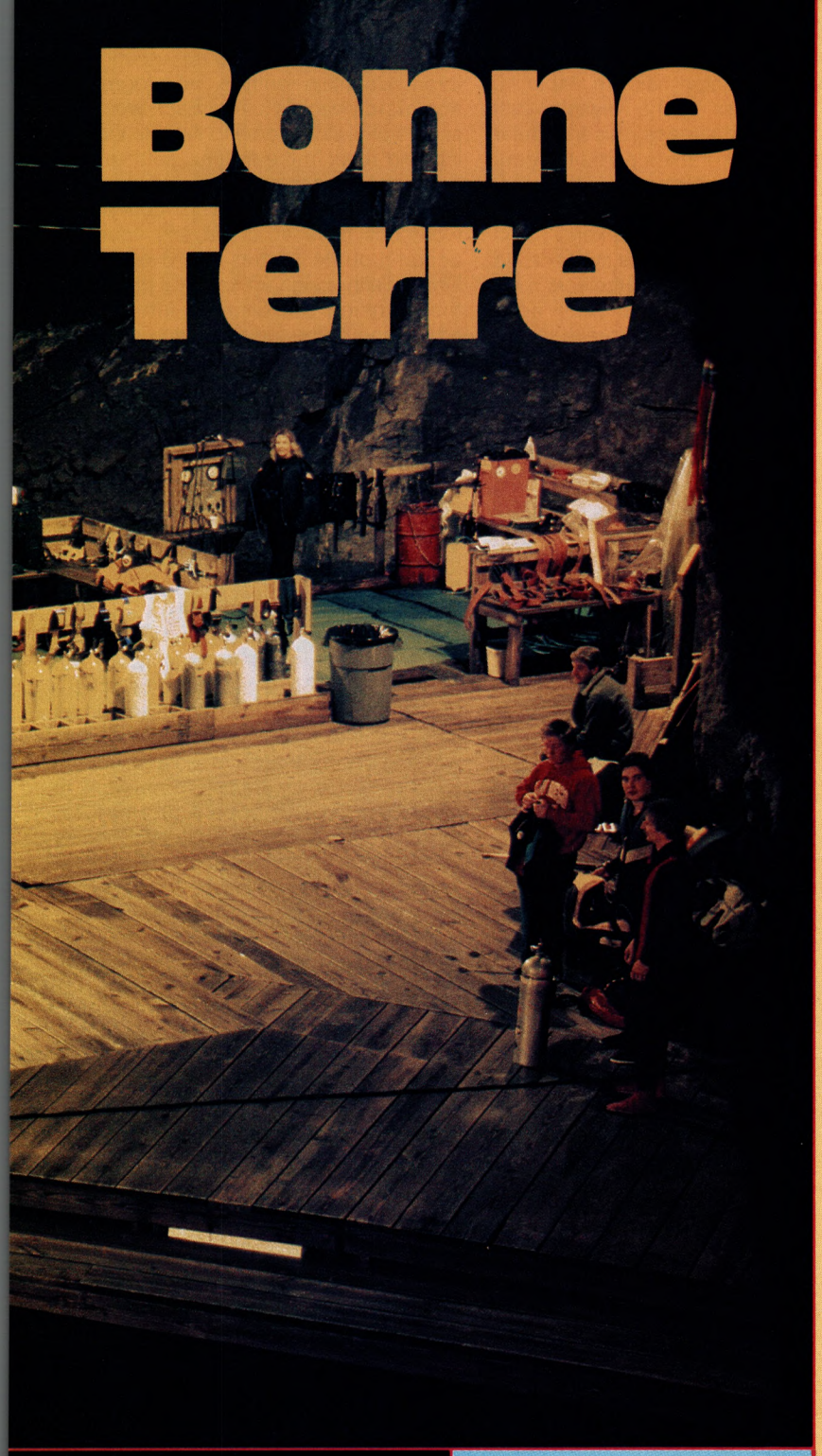
Topside, Doug and Cathy Goergens have the perfect furnishings and nautical artifacts to complement the mood and period of the Mansion Hill Country Inn. U/W, they have illuminated scenes that look like gigantic painted backdrops. The combination is exceptional.

Bonne Terre's Billion Gallon Lake Resort is a mine. The United States' largest manmade cavern, it is anything but small. You never feel closed in. This underground lake has 17 miles of navigable waterways. Hundreds of stone pillars, some 200 feet tall and more than 50 feet in diameter, break up the space. In the early 1900s, miners were unsure how much support the roof needed; as modern engineers testify today, the excavation is extremely overbuilt. Thanks to the creative lighting installed by Cathy and Doug, these rough-hewn rock columns, balconies and buttresses take on a Gothic look.

What keeps more than 7,000 divers visiting the resort each year? One answer is consistency. The year-round air temperature below the ground hovers at 62°F. Water temperature never deviates from 58°F. There are no thermoclines! U/W visibility is an average of 80 feet.

The closest thing to dangerous marine life in the Billion Gallon Lake is the staff's pet inflatable shark. Little wonder that instructors from as far away as Chicago and Milwaukee regularly choose Bonne Terre as their preferred training site.

An hour before a scheduled tour, visitors check into the Old Mine Dive Shoppe. If they're new to the scene, a dive guide and safety diver verify C-cards and logbooks. After an informative briefing on procedures, the area's history and some highlights of the dive site, guests follow the guides down the Old Mule Entrance. (At one time, mules hauled the workers and ore in and out of the works.)





Diver Eleanor Klein poses with a wrench left behind when the mine closed. At the Billion Gallon Lake Resort, divers swim through the clear water of a submerged time capsule. Very little has been disturbed. In addition to examining artifacts, divers are treated to fantastic views of artistically lit chambers and columns. The rooms and drop-offs are immense.

In the changing rooms, divers don their wetsuits and then rendezvous with their guides by the water.

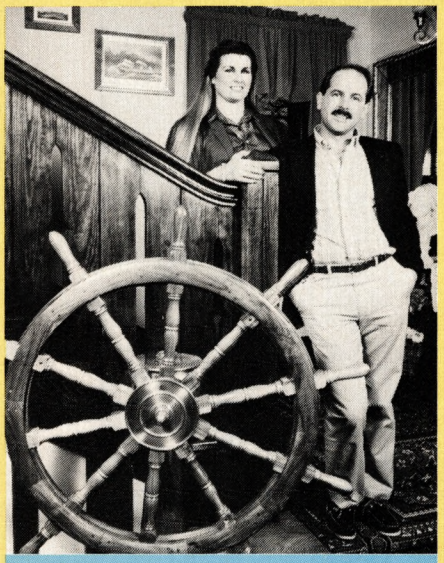
Like everything else here, much thought went into designing the spacious dock. Dockmaster "Bones" oversees the operation of the Billion Gallon Lake Resort. He makes sure everyone receives a full 80 cubic foot tank and Cyalume light. By staggering the tour departures at one-half hour intervals and keeping groups to a maximum of eight per guide and safety diver team, Bones simultaneously entertains 60 or more divers without having a crowd on the dock. Bones and the other staff members are always ready to help. There are wooden steps to the water level and divers can choose between making a giant stride or sliding in using a controlled, seated entry. Staff members greet returning divers and collect weightbelts, tanks and BCs. Without them, exiting onto the lower step is a breeze.

Just as a Caribbean resort guide tends to follow a particular route down the reef, the Deep Earth Divers cruise along trails. As with their southern counterparts, the Bonne Terre divemasters take newcomers to the shallower spots first. The depth for most tours averages between 40 and 60 feet. The trails are numbered.

While it is true to say the lower numbered trails are easier to swim, they have just as many interesting features as the advanced ones. Newer paths come on line after a region of the excavation is thoroughly explored and lighted. Veteran Deep Earth Divers may have up to 12 trail patches sewn on their dive jackets. This imaginative group has laid out several diver propulsion vehicle courses; effortlessly whirring through stone arches, past the ore carts and across the manmade canyons is great fun.

When the order came to close the mine years ago, workers dropped everything. Equipment sheds, lunch pails and even eyeglasses were left behind. Very little has been disturbed. You swim through a submerged city that's a perfect time capsule. Slipping over a shallow rock saddle on trail one, you spot a pneumatic jackhammer sticking out of the wall. Everyone takes turns posing for pictures here. Other artifacts lying on the rocks include shovels, hats and a plate from an old crane. In this first trail's ore cart, guides show you the old picks and chisels once used to hack away the walls. Sitting on one of Trail Two's shelves rests another ore cart with wheels intact. Colorful traces of unharvested copper and lead minerals still glitter in the bedrocks. During the decades the works were open, rainwater percolated down the walls and pillars. In a few spots, white calcium carbonate was deposited as undulating sheets and short stalactites. On Trail Two, one of the largest and prettiest of these now submerged formations—usually referred to simply as the Cal Falls—makes a great setting for underwater photography. Along other routes, guides point out blue and green tinted calcium deposits. Several trails pass by the Keyhole. Just 15 feet below the surface, this triangular cut in the bedrock frames portraits beautifully. Trail Three's Grating similarly creates an interesting image. Those who sign up for the four dive weekend package get to visit the enormous tower called The Structure. This metal framework rises from 50 feet to the surface; when functional, it served as the main ore elevator. These are just some isolated highlights.

Part of what makes this destination so special are the incredible underwater overviews. Sunlight reaches down through the air shafts to blend in with the artificial illumination. Using more than six miles of cables and 200,000 watts of lighting, the Goergens have given the site a new look. Installing powerful mercury and sodium vapor fixtures connected to two separate ground-fault circuits, the Goergens literally painted the incredible chambers, ledges and columns. The effect is amazing. Subdued but directional light skims the contours of the manmade cliffs, revealing their striking texture. Blues predominate. One stunning view is through the Opera Window. This oval hole in the wall, large enough to drive a minibus through, frames a blue-green vista beyond.



Doug and Cathy Goergens at the Mansion Hill Country Inn. The Goergens have sought out the perfect furnishings and nautical artifacts to complement the mood and period of the historical 32 room edifice.

This author was one of the first people to experience—not just see, but experience—Carlsbad. The rooms and drop-offs are immense.

Most people describe the surface world of Bonne Terre, Missouri as a sleepy little mining town. The hustle and bustle of St. Louis, 62 miles to the north, has not reached Bonne Terre. In the old Lead Belt towns scattered around the Ozark Mountain foothills, life progresses at a more peaceful pace. Each weekend scores of visitors come to sample the diving and relax in the tranquil setting.

On the corner of the resort property stands the Deep Earth Divers' Lodge. The Goergens have arranged this house to accommodate parties of 16 or fewer. Groups either sign up for meal plans with the Mansion Hill Country Inn or take advantage of the lodge's own kitchen.

During the boom years of the early 1900s, St. Joe Lead Company constructed the president's residence. Built as a symbol of prosperity and prestige, the 32 room mansion and 133 acre estate crowned Bonne Terre's highest hill. Doug and Cathy have carefully renovated Mansion Hill Country Inn. Once again it offers a warm and elegant atmosphere and gourmet cuisine.

Arriving visitors receive Mansion Money. Divers use it to pay for their meals. Weekend packages include food, but rather than follow a set menu or schedule, visitors can choose what and when they want to eat. From the five chefs working in the kitchen comes a wonderful variety of culinary treats. Don't want to leave the Dive Shoppe's grounds for lunch? The mansion staff will gladly deliver a Diver's Express Lunch. Dinners at the mansion deserve a whole article unto themselves. Begin your feast with escargot or homemade New England clam chowder. For entrées try beef Wellington, Chateaubriand, blackened shrimp or crab legs. A side order of stir fry vegetables is a must. Although there is not enough room here to adequately praise the food, hopefully, you'll remember to save room for the chocolate pecan pie.

With each season there is a different entertainment. Just as Bones coordinates the activities in the mine, Jim is usually the one who helps organize the various Mansion Hill events. During the summer months, the crowd moves out of Goosby's Pub (named in honor of the mansion's pet goose) to the Wine and Beer Garden. If you're not into badminton or croquet, perhaps a stroll down one of the nature trails will suit you. Fall brings hayrides and bonfires. After cross-country skiing, a winter's evening usually includes cozy fireplaces or warm laughter in Goosby's Pub. At any time, a carriage ride is a great way to tour Bonne Terre.

Doug and Cathy maintain an apartment in the mansion; as Doug put it, "We're able to live in our fantasy." When you leave you'll feel as though they have shared their dream with you. West End Diving's Billion Gallon Lake Resort and Mansion Hill Country Inn are distinctly North American. This is definitely a special place you must experience.

For information contact: West End Diving Center Headquarters, 11215 Natural Bridge Road, Bridgeton, MO 63044; (314) 731-5003.



The place is "far out" . . . the price is not!

Lovely reefs +
Thrilling walls +
Historic & modern +
wrecks
World-famous +
Shark Reef
Overnight Adventure +
Dive Cruising
A great dive resort +
$489.00 =
Tips & Taxes 42.00 +
7 Nights,
per person dbl. occ.
12/19/86-4/28/87

And . . . two persons together (diving or non-diving) visiting us Saturday-to-Saturday, can save another $139 (subject to our own flight services, Ft. Lauderdale or Nassau/Stella Maris being booked into package)!

Any way you add it up, our diving/non-diving packages are always a superb value in top tropical diving and unmatched island resort holiday enjoyment!

For reservations or information, contact your local dive shop or travel agent, or call our U.S. booking information office collect at 305-467-0466, or U.S. & Canada 800-327-0787, Miami 443-3821.

Fill out this coupon and mail to: Stella Maris Inn, P.O. Box SM-105, Long Island, Bahamas.

Name _____

Address _____

City State Zip SKD

CALIFORNIA GOLD

(Continued from Page 137)

of an additional supply of shot; and the rest of us set to work with redoubled energy, to construct a second and larger raft, with such improvements as our hard-won experience suggested . . . .

"In less than one week our raft was completed; it was much larger than the other, with an opening at one end, over which we erected a stout triangle or tripod to assist in raising and lowering the diver. For more than a month we continued to struggle against a series of delays and vexations such as must necessarily attend an undertaking of so great magnitude in a new country; but after all, the thing itself was the chief obstacle—all others were finally surmounted—but we were apparently as far as ever from attaining our object. The diver was almost entirely helpless in his moving prison; he was unable to remain underwater more than a few hours per day, and came out dripping with perspiration and trembling as if he had the ague.



photo/Lee A. Silva

Although makeshift, the Raven brothers' operation might have been similar to this.

"More than once he was overtaken by the same fit or faintness that had so alarmed us before and we were thus kept in a state of constant apprehension. He found it nearly impossible to use a pick or shovel underwater, but contrived by means of a small scoop to fill an iron pot we lowered down to him; and though it contained little gold, this trifling achievement raised considerably the spirits of the more sanguine of our party.

"I had for some time, however, ceased to feel any lively faith in our success and, on consulting with my brothers, we all agreed there was little hope of doing anything that season, and we determined to sell our share of the diving suit without further delay. An opportunity soon offering, I disposed of our quarter share of the

BELIZE AND ROATAN— TWO FOR ONE!



LA STREGA, our 86 foot dive yacht will take you to all of the best dive sites of BELIZE and ROATAN—both on one trip, for one air fare and, for one **ALL INCLUSIVE PRICE.**

LIVE-ABOARD in air conditioned comfort and enjoy the freedom to explore the primitive beauty of *the* Great Barrier Reef of the Caribbean—the Belize Atolls, Lighthouse and Glovers; the famous Blue Hole and the Bay Islands of Honduras— **ROATAN *AND* UTILA.**

Join us on **LA STREGA'S** semi-annual GRAND SEAFARI and experience true tropical adventure.

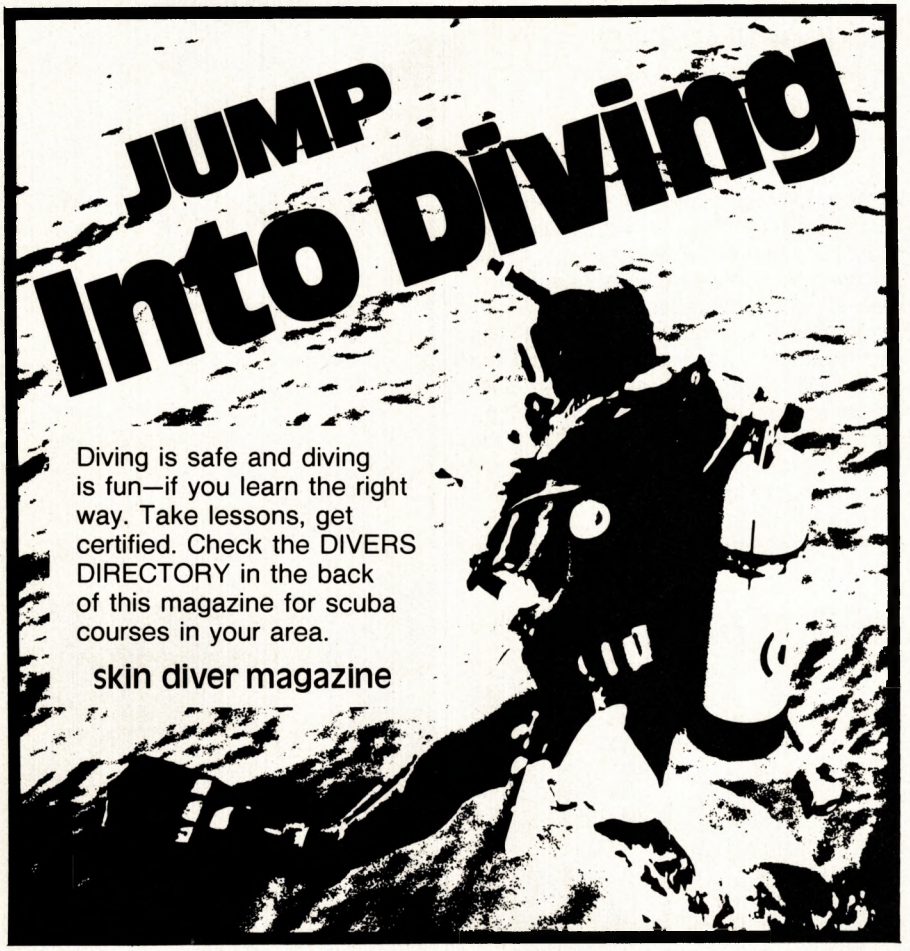
To receive all the facts, our brochure and rates, call us toll free.

(800) 433-DIVE

Texas and Canadian residents call collect (713) 999-1463

LA STREGA

5818 Green Falls Dr. Houston, Texas 77088



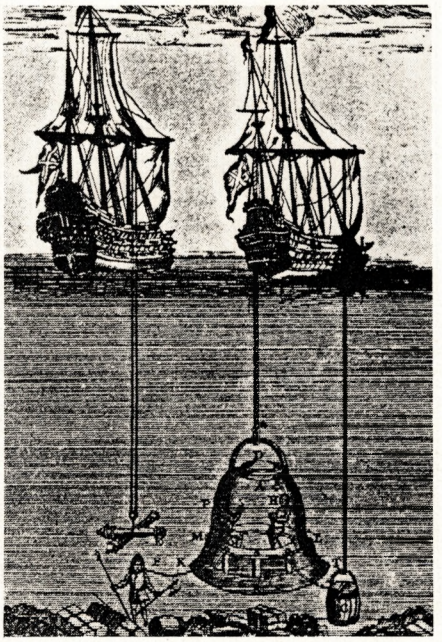


CALIFORNIA GOLD

armor for $495 to be paid two days after at Coloma; and thus ended six weeks of the severest labor I ever encountered."

While the diving was going on, Ralph and Tertium Raven continued to dig for gold with as little success as the diving operation. They were getting more discouraged than ever now and even refused to invest in the services of a dowser who guaranteed he would find gold for them by using a piece of a whalebone umbrella shaft as a dowsing rod.

St. John rejoined his two brothers on July 22, 1850 and gave them the dismal report on the diving operation. On the same day, the brothers' hopes were revived somewhat by a letter from the East Coast stating their diving dress had been shipped from New York and was on its way to California.



The Ravens considered using a homemade diving bell in their quest for gold.

Evidently, the bad experience with the submarine armor showed the brothers the folly of trying to dive when they knew nothing about diving. Except for mentioning the cost of their share in the diving suit they had experimented with, Raven never again writes about the submarine armor or the suit that was being shipped to them from New York. Presumedly, the suit from New York either never made it to California or, if it did, the brothers sold it and never tried to use it.

They returned to their original diggings at Mormon Island in August and spent the rest of 1850 being as unsuccessful dig-

ging for gold as they were before.

They continued hopscotching all over the American River, continually investing in claims that were just as petered out as their previous ones. They invested in one more Rube Goldberg idea, a project that would build a diversion channel and a dam across a narrow part of the South Fork of the American River and, hopefully, at last enable them to get at the underwater gold that had been sifting into the river bottom for centuries.

The youngest brother, Tertium, finally gave up and returned to the East Coast on May 1, 1851 leaving Ralph and St. John to continue on with their grand dreams of gold.

The American Dam was finally completed in July 1851 and the drained river bottom immediately began to produce enough gold to make every investor in the project more than happy. They even built a flatboat to float their water pump on "the first steamboat ever built on the American River, if not in California," as Raven tells it.

At long last, the Ravens' dreams were finally realized. Though the experiment with the submarine armor didn't get them to the river bottom gold, the damming project did. The damming project was so successful that shares in the American Dam Company sold for $10,000 each.

When the dried up portion of the river bottom was mined, Ralph and St. John Raven decided to sell out and go home rather than get involved in another damming project. It was as if their only goal was to succeed at getting to the river bottom gold rather than to get rich from it.

With their money belts filled with California gold, they sailed from San Francisco on the ship *Carolina* on September 15, 1851, spent more than two weeks crossing the isthmus of Central America on foot, caught a steamer to New York from San Juan, and arrived in New York on November 9, 1851.

Their California odyssey was over and their diving experiment had been "the most stirring episode in the whole course of our adventures."

Ralph Raven ends his journal by writing, "Our long life of entire freedom and independence was . . . over and we hastened to resume the shackles of civilization . . . . Our romance is ended—our little episode is complete—and we sink, like a drop of water in the ocean, into the flat monotony of our commonplace existence . . . ."

He must have felt great satisfaction with his perseverance, for he and his brother St. John were among the first men to succeed in digging a wealth of gold from the actual river bottoms of the California gold country, a dream that, to this day, still brings hundreds of hookah and dredge equipped prospectors to the gold country every spring and summer.

Looking for a Good Time in Key Largo?



Climb aboard! Explore the famous John Pennekamp Park from our 50' gleaming white dive yacht. Never over-crowded, the *GOOD TIME* doesn't limit your fun to only one or two reefs. Dive living coral gardens, explore a World War II shipwreck, or be dazzled by the majestic underwater statue of Christ. And there's lots more to see!

So if you're looking for a good time, climb aboard. Our *GOOD TIME* is ready to take you diving!

2 days/1 night Double Occupancy **$110**
(4 dives including tanks and weights)



Holiday Inn®

DIVERS DEN KEY LARGO

Call us Toll Free:
1-800-527-DIVE
In Florida: (305) 595-1954

Mile Marker 100, Key Largo, FL
12614 N. Kendall Dr., Miami, FL 33186
8280 State Rd. 84, Fort Lauderdale, FL 33324

We also dive the fabulous wrecks of Miami and Fort Lauderdale. Let us arrange your entire Florida dive vacation! Price subject to change without notice.

Discover The Best!
COZUMEL
Above And Below!

$424.00

- **8 days, 7 nights at the new Bahia Hotel**
- **6—2 tank boat dives with lunch**
- **Unlimited beach diving**
- **Includes mandatory 15% Mexican Hotel Tax**
- **Free disco pass**



The new Bahia Hotel is located right on the harbor in downtown San Miguel. Enjoy great diving during the day, then jump into San Miguel's exciting nightlife after the sun goes down. After all, Cozumel offers the BEST (Diving & Jiving) vacation avail., at the BEST prices!

To Discover The Best Cozumel Has To Offer Day And Night

Call NOW 1-800-446-2166

CONTINENTAL
Two Worlds Travel

Texas residents call (713) 446-2166 collect for reservations only.
1307 First St., Humble, TX 77338

U.S. TECH DATACOM CONSOLE

Color Coded For Safety



TEXT AND PHOTOGRAPHY BY BONNIE J. CARDONE

Every school child can tell you what green, yellow and red mean. Found in the traffic signals most of us have to deal with many times each day, green means go (safety), yellow, proceed with care (caution) and red, stop (danger). How clever of equipment manufacturers to apply these easily understood concepts to our scuba gear. A good example is U.S. Tech's Datacom console, distributed by Berry Scuba.

The Datacom retails for $180. For that price you get both a 150 foot depth gauge and a 5,000 psi pressure gauge in a heavy duty molded rubber housing. This latter provides protection from bumps and shocks, particularly important to depth gauges. Although they are pretty sturdy, they can be knocked out of calibration. A shock absorbent rubber housing can help prevent this. The Datacom is angled and swivels on the end of its hose so its gauges can be read easily.

The 150 foot depth gauge is graduated in five foot increments. From 5 to 30 feet these are shaded green, as are pressures from 5,000 to 1,500 psi on the pressure gauge. This indicates safety: Bottom time and air are plentiful.

Depths from 30 to 90 feet are indicated by yellow, as are pressures from 1,500 to 500 psi. Just as the middle light of a traffic signal, this means proceed with care. At these pressures, you should be considering surfacing. And, although depths from 30 to 90 feet are not unusual, the yellow is there to remind you to *think* about what you're doing.

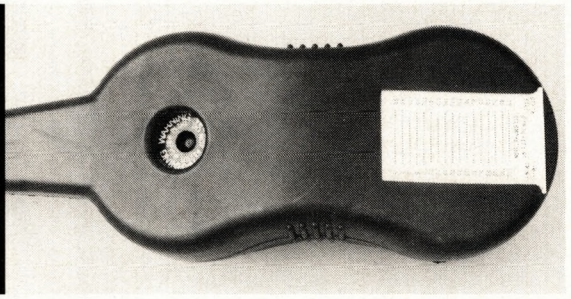
From 90 to 150 feet, the depth gauge face is red, to remind divers that bottom time is very limited and should be carefully monitored. Pressures of 500 psi and less on the pressure gauge are also indicated by red, to show that the air supply is dangerously low.

Both Datacom gauges have luminious faces and are easy to read in little or no light. The pressure gauge, housed in brass, is a spiral wound Bourdon tube type, which is state of the art in the industry today. The oil filled depth gauge is housed in Lexan. It is accurate to within two percent on the first third of the scale; four percent on the second third; and six percent on the final third. According to the manufacturer, if it errs it will tend to read deeper rather then shallower.

Datacom consoles come with a lifetime warranty on *everything*—including the hose and O-rings. Should repairs be needed, simply return the console to Berry Scuba: The company promises a 48 hour turnaround time.

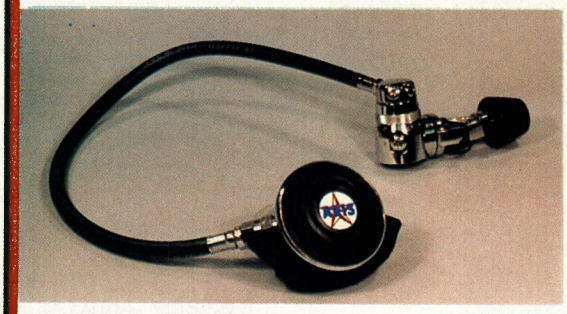
The Datacom comes with a set of no decompression tables on the back; these can be removed and a U.S. Tech, aluminum housed compass ($54), slipped in the slot. U.S. Tech also offers the Datacom II: It has the same pressure gauge, but the depth gauge is a diaphragm type with a maximum depth indicating needle and a thermometer. The Datacom II retails for $220.

For more information on the Datacom consoles contact: Berry Scuba (U.S. Tech distributor), 6674 Northwest Highway, Chicago, IL 60631; (312) 763-1626.

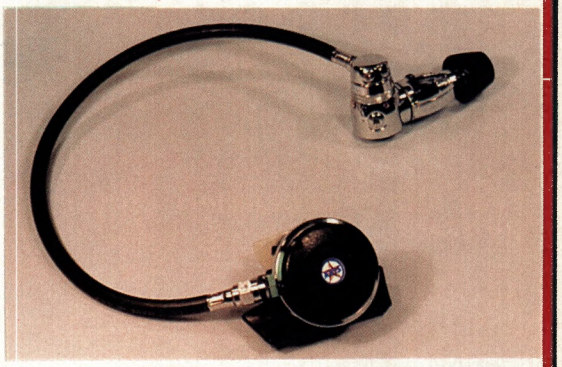


The Datacom console contains a 150 foot oil filled depth gauge and a 5,000 psi Bourdon tube type pressure gauge. The no decompression tables on the back can be removed and a compass slipped in their slot.

U.S.TECH





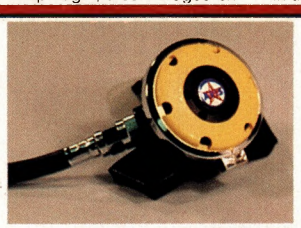


U.S.TECH - All *Vanguard* series regulator features a high performance balanced first stage with unique styling, four low pressure ports on an end swivel, two high pressure ports, large internal piston for maximum air flow and reliability, teflon seat for durability, and an environmental design that allows it to be used in silty, sandy, or turbid waters. The *Professonal* series second stage (at left) is constructed from chrome plated marine Brass, and features silicone internal parts, silicone mouthpiece, and a special exhalation valve weight that prevents water entry, even while up-side-down underwater. The exhaust deflector and second stage front are constructed from pliable black rubber. This decreases second stage weight, and increases comfort. The entire second stage face acts as a purge button, making regulator purging very easy. The *Professional* Silicone second stage (middle) has all the above features, with the added styling of a translucent blue silicone exhaust deflector and regulator front.
The *Vanguard* Sport second stage (at right) is constructed from polymer synthetics, and features a large neoprene exhaust valve and inhalation diaphragm, a semi-ridged exhaust deflector, silicone mouthpiece, and large, easy access purge button. Easy breathing, it is ideal for divers who still demand the best, but do not require the extra features of the *Professonal* series.

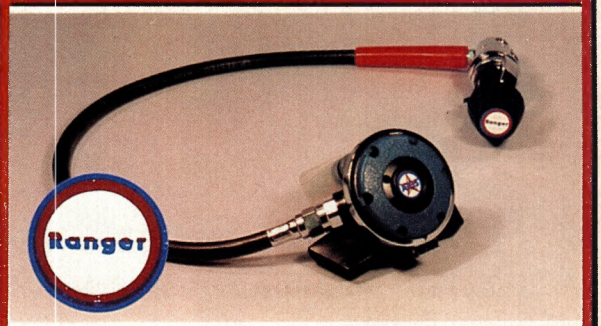
Vanguard Professonal Silicone Retail $310.00 **Sale $199.95**
Vanguard Professonal Retail $280.00 **Sale $184.95**
Vanguard Sport Retail $220.00 **Sale $149.95**
Note: *Vanguard Professonal* regulators include Scuba Guard padded carrying case.
All U.S.TECH regulators include a lifetime warranty on all moving parts and housings, two year warranty on all other parts (including hoses and seats), and one year on labor. Made in the U.S.A.



Professonal series octopus: Featuring the innovative *Vanguard Professonal* second stage with high-visibility yellow exhaust deflector and regulator face, and with an extra-long 40 inch hose. Attaches to L.P. port. Made in the U.S.A. Retail $155.00 **Sale $89.95**



Sport series octopus: Featuring the U.S.TECH Sport second stage with bright yellow face, and long 36 inch hose. Attaches to L.P. port. Made in the U.S.A. Retail $105.00 **Sale $54.95**



Ranger regulator: Easy breathing and a dream to use, the Ranger is ideal for the economically minded sport diver. An unbalanced piston first stage with four low pressure and one high pressure ports combined with the ARIS Sport second stage makes this one of the best sport regulator we offer. Easy breathing, and great styling! Made in the U.S.A. Retail $175.00 **Sale $109.95**

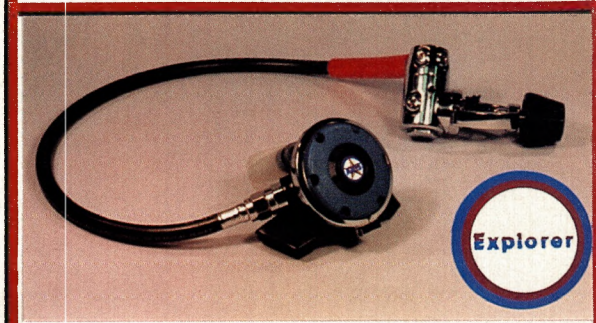


Datacom Consoles: Color coded (color coding is according to recognized diving standards), easy-to-read large numbers, and extreme accuracy are just a few of the features that make the Datacom line of U.S.TECH gauges one of the finest offered. The console gauges are enclosed in a heavy duty molded rubber housing that provides added protection, and has the depth gauge at a slight upward angle to make it easy to read both gauges at a glance. All gauge faces are luminous for added visibility. An optional compass slides on a special track located on the console back. Made in the U.S.A.

All U.S.TECH gauges feature a lifetime warranty on everything, including hose and O-rings! This is the only gauge you need ever buy!

Datacom - Brass pressure gauge (5000 psi), oil filled depth gauge (150 feet). Retail $180.00 **Sale $89.95**

Datacom II - Brass pressure gauge with built-in thermometer (5000 psi), diaphragm depth gauge with maximum depth indicating needle. Retail $220.00 **Sale $119.95**



Explorer regulator: Combining a balanced piston first stage that has five low pressure ports and two high pressure ports with the ARIS sport second stage creates one of the finest sport diving regulators on the market! Light weight, good looking, dependable, and affordable, the Explorer is ideal for most Scuba divers needs! Made in the U.S.A. Retail $210.00 **Sale $129.95**

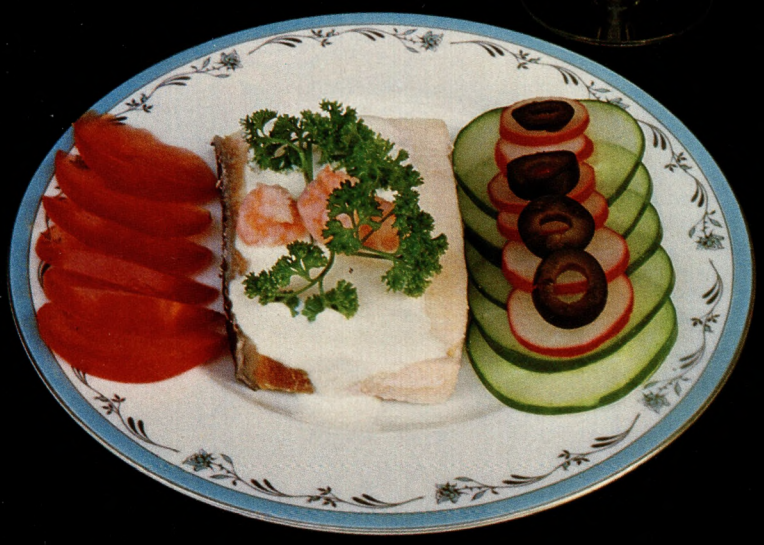
Order from **Berry Scuba Co., exclusive distributors of U.S.TECH.** *By Mail: Send your order to* **Berry Scuba,** *Dept. U.S.T., 6674 Northwest Hwy, Chicago, IL 60631, and include a Money Order, Cashier's Check, Certified Check, or one of the following charge card numbers with expiration date: Master Card, Visa, American Express, Discover Card, PADI Card. Do not send personal checks, as they require 30 days to clear.* **By phone:** *Call toll free 24 hours a day, 7 days a week (outside Illinois) 1-800-942-5301 (in Illinois call (312) 763-1626 during store hours), and have your order ready and charge card handy.* **You must pay our standard shipping cost.**

Caution: Scuba diving requires special training. No SCUBA equipment should be used by non-certified, non-trained persons.

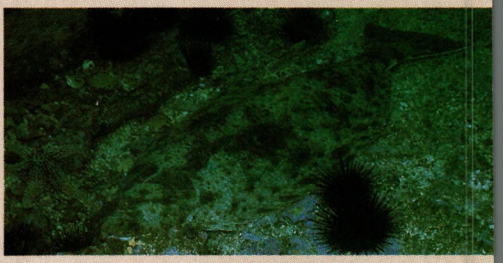
THE GOURMET DIVER

West Coast HALIBUT

TEXT AND PHOTOGRAPHY
BY TOM CAMPBELL







photo/Bonnie J. Cardone

Tony Suhrer with a 35 pound halibut. These fish blend well with their surroundings. Left: Halibut with Sour Cream Sauce.

POACHED HALIBUT WITH SOUR CREAM SAUCE

4 halibut steaks (each about 1 inch thick), thawed if frozen
2 C water
4 each whole cloves and whole black peppers
2 slices lemon
1 carrot, cut in large chunks
1 medium-size onion, cut in large chunks
½ tsp. salt
1 cucumber
1 bunch radishes
2 tomatoes
Parsley
Pitted ripe olives
16 medium-sized shrimp, cooked, shelled, deveined and chilled

Wipe fish with damp cloth and place in frying pan. Pour in water and add cloves, peppers, lemon slices, carrots, and onion; sprinkle with salt. Bring to a boil, reduce heat, cover, and simmer until fish flakes readily when prodded in thickest portion with a fork. For a one inch thick piece of fish (measured in thickest portion), allow 10 minutes.

Transfer fish to a large serving platter, arranging in a single layer; cover and chill. Reserve poaching liquid for sour cream sauce.

To serve, arrange fish steaks in single layer down center of platter. Slice cucumber thinly and arrange along one side of fish. Trim and slice radishes thinly and scatter over cucumber slices. Cut tomatoes in wedges and arrange along other side of fish. Spoon sour cream sauce over fish and garnish each steak with shrimp. Makes 4 to 6 servings.

Sour Cream Sauce

3 egg yolks
1½ T lemon juice
¾ C poaching liquid
1 C sour cream

Strain reserved poaching liquid. In top of a double boiler, directly over high heat, boil rapidly until reduced to three-quarters cup. Beat egg yolks until light yellow; then beat in lemon juice. Using wire whisk, gradually stir hot poaching liquid into egg mixture.

Return mixture to top of double boiler and place over hot (not boiling) water. Stirring constantly, heat gently just until sauce is thickened (about 5 to 10 minutes). Let cool; then cover and chill. When thoroughly chilled (about one hour), blend sauce into one cup sour cream and chill again until ready to use.

One of the most sought after gamefish on the West Coast is the California halibut (*Paralichthys californicus*), which ranges from Baja, California to Oregon. This elusive flatfish has always sparked excitement in the minds of novice and experienced divers.

A master of camouflage, the halibut is often found on sandy bottoms where it occasionally covers itself with a thin layer of sand that leaves only two bulbous eyes as a clue to its hiding place. There it plays a skillful predator's waiting game. One horizontal thrust of its powerful tail enables it to enjoy a meal of one of its favorite foods—unsuspecting anchovies, queenfish or squid.

In their larval stage, halibut start life like most other fish, with one eye on each side of the head and feeding near the surface of the sea. Then one eye begins to migrate to the other side of its head and the tiny fish begins to evolve into a flatter form. After both eyes are on one side and it has lost its swim bladder, the halibut descends and becomes a bottom dweller for the rest of its life.

Once on the bottom, the fish develop protective coloration. Occasionally, they may be brown on both upper and lower surfaces (ambicolored) or, more rarely,

white on both upper and lower surfaces (albinistic). Most frequently, they are white on their downside; their tops are a sandy brown with spots that blend well with the surroundings and make them an almost invisible target to all but the most alert hunter.

Halibut usually blend well with their surrounding terrain, whether it be a sandy bottom or an occasional rocky reef. The diver looking for them might lend a close eye for smaller schooling baitfish, which may reveal its hiding place. California halibut are found at depths ranging from shallow surf areas to more than 300 feet, depending on their food source and the water temperature. They are sighted more frequently in the later summer months through December.

It is not uncommon for California divers to take these flatfish up to 50 pounds, especially around the Northern Channel Islands off the Santa Barbara coast. A record 72 pound 8 ounce fish was speared near Santa Cruz Island by William B. Skwarlo. His record still stands, making a challenging goal for sport divers!

Other species of halibut are found in many oceans throughout the world. Some weigh in excess of 600 pounds, with the females being the largest.

California State Fish and Game laws require halibut to measure 22 inches from the tip of the nose to the end of the tail to be legally taken by sport divers. In addition, a diver must possess a California sport fishing license and enhancement sticker if taking game south of Point Arguello. Although there is no closed season on California halibut, divers are limited to five fish per day.

Contrary to popular belief, being an expert spearfisherman is not a prerequisite to taking this delicious sport fish. The key lies both in the diver's ability to spot the fish in their natural surroundings and in locating the type of terrain where they hide. Once you've located key spots, these same areas will usually produce game year after year.

There are a few simple tips you should consider prior to your first halibut hunting expedition. Searching for halibut has been compared to flying over the Sahara Desert, and you may likely cover large areas of featureless, sandy bottom. Maintaining a basic compass orientation will eliminate your having to negotiate the same areas over again and perhaps save you a long swim back to your boat or the beach. The speed at which you swim simply depends on how sharp your eye is. A keen eye is very important as some prize fish have been taken shortly after other divers have covered an area.

Whether you use a pneumatic gun, rubberband gun or polespear, you need a sharp tip with flanges that open when the fish is penetrated. Many divers prefer a breakaway tip to take the strain off the shaft, especially with larger, heavier fish. A metal game hook or stringer is another

Best Kept Secret In Florida
DIVER'S DREAM VACATION
IS HERE THANKS TO
The Colonnades Beach Hotel & Frank's Dive Shop

The Colonnades Beach Hotel—Located on 16 acres of tropical landscaping with 1500 ft. of white, sandy beach. Three excellent restaurants with nightly entertainment. Other features include beach front bar, clay tennis courts, golf (special rates with PGA), spa, 2 fresh water swimming pools and only 18 mins. from PBI Airport.
Frank's Dive Shop—The oldest dive shop in the Palm Beaches and the innovators of drift diving. Three dive boats with professional captains and crew. Divemasters and guides on all boats.
Diving—The crystal clear and warm waters of the gulf stream sweep closer to shore here than anywhere else in Fla. Over 60 dive sights with numerous wrecks & reefs.

$259 pp/dbl.
6 days/5 nights
Package includes: • Hotel accommodations (taxes incl.) • Welcome cocktail • 10 tank dives, weights/tanks/air—Sun.-Fri. (late chk. out) • Group rates available

$135 pp/dbl.
3 days/2 nights
Package includes: • Hotel accommodations (taxes incl.) • Welcome cocktail • 6 tank dives, weights/tanks/air • Weekdays only

INQUIRE ABOUT SPECIAL AIR FARE W/PACKAGE
CALL FRANK'S DIVE SHOP
1-800-848-7632 • (In FL 305-848-7632)
301 E. Blue Heron Blvd., Riviera Beach, FL 33404
Colonnades Beach Hotel, 101 Ocean Ave.
Palm Beach Shores, FL 33404; 1-800-327-7661



"hopi bon"

Bonaire is better than "bon." It's "hopi bon!"

The water stays perpetually calm. The corals grow all the way to the surface. The trade winds keep gently blowing. The fish eat from your fingertips. And the flamingos fly back to their nests every night just as the sun boils into the sea.

There is an island resort on Bonaire that is also better than "bon." Ten quiet rooms, some with kitchens, right on the ocean.

At CARIB INN you don't have to dive with a hundred other divers. We take you, and a few of our other friends, to the very best spots. Spots where the summer camp boats never go.

At CARIB INN, it's better than "good," it's "very good!" It's "hopi bon!"

Bruce Bowker's
CARIB INN

P.O. Box 68, Bonaire, Netherlands Antilles
Telephone 011-599-7-8819



Blackbeard's

Sail/Dive Cruising In The Bahamas

"The Best of Both Worlds Above and Below"

- 3 dives a day
- beach parties
- island exploration
- out-island nightlife
- shell collecting
- sailing • fishing
- lobster hunts
- lazy days
- virgin diving

Nobody Has More Fun –

Blackbeard's Cruises
P.O. Box 66-1091, Miami Springs, FL 33266
Toll Free (800) 327-9600 • Florida
Florida (305) 888-1226

HALIBUT

essential piece of equipment. It normally attaches to the diver's weightbelt and should never be removed while stringing your fish—as over-anxious divers who have lost spearguns, game hooks and prize fish would agree.

When searching for your quarry, swim as high off the bottom as visibility will allow for spotting small details around and below you. Usually the fish will let you get quite close. Once you spot your flatfish, try to approach it from the front. A frontal shot will use the halibut's forward momentum to further set the spear-tip. Aim center, just behind the gill pad, and you won't damage meat and shouldn't lose your fish.

The excitement has just begun when you shoot your fish; a large halibut will put up quite a fight and provide a free ride to boot. Remember, if you spook your fish or miss your shot, it's probably history. You rarely get a second chance.

It is extremely important to use proper

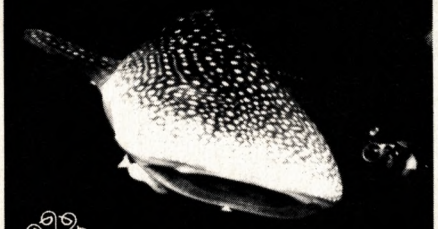
BAKED HALIBUT

⅓ lb. fish per person
Butter
Lemon pepper
Parsley
Lemon

Preheat oven to 350°F. Place room temperature fish in a greased baking dish. Cut fish in serving pieces and spread butter on top. Sprinkle with lemon pepper. Bake until fish turns opaque. Serve with sautéed mushroom caps. Garnish with lemon wedges and parsley.

DIVE THE SEA OF CORTEZ

Join us aboard the DON JOSE and BAJA EXPLORADOR for exciting underwater encounters in Mexico.



Baja Expeditions, Inc.
P.O. Box 3725-SD. San Diego. CA 92103 • (619) 297-0506

DIVE BVI
VIRGIN GORDA

Dive the Wreck of the Rhone, Mosquito Rock, Chikuzen, and much, much more!

8 day 7 night packages
5 2 tank dives
from $369.00 p.p.
LEVERICK BAY
North Sound, Virgin Gorda
British Virgin Islands
Call toll free
1-800-387-4964
In Virgin Gorda call
(809) 495-5513

LEVERICK BAY

GO DIVING!



CAYMAN ISLANDS
TURKS & CAICOS
ST. LUCIA
COZUMEL
BELIZE
SABA
ST. EUSTATIUS
ROATAN & GUANAJA
BONAIRE & CURACAO
GALAPAGOS ISLANDS

Specialists in Dive Travel since 1968

Go Diving Inc. • 715 Florida Avenue South • Minneapolis • 55426

1-800-328-5285 In MN call (612) 544-7168

DO NOT DIVE!!...

Until you've tried our



State of the Art "Sea Belt"® (GUNSHOT DIVING BELT)

1000 Denier Cordura cloth, dol-stitched with Dacron thread, abrasion resistant, unaffected by rot or mildew. Features: Easy fill-up spout; Self-locking gunshot passage; Halfmoon-shape that locks belt in place (accommodates standard diving backpack).

SIZES: Small 25-30, up to 22 lbs.
Medium 29-35, up to 30 lbs.
Large 34-40, up to 37 lbs.

FREE Solid brass goody bag snap hook.

Send $26.95 + $2.50 postage (check or money order) to:

IMAGES D'AVANT GARDE
110 Mariner Green Dr., Dept. 487
Corte Madera, CA 94925 (415) 924-9144

Calif. residents add $1.77 sales tax. Full money-back guarantee. Made in California. Dealers inquiries welcome. Gunshot not included. Orders shipped immediately.

Little Cayman

Why Listen To Others? - Come See For Yourself
Reefs, Wrecks, And The Finest Wall Diving In The World
The Ultimate In Caribbean Diving
For More Information, Brochures, And Reservations Call:

Sam McCoy's
Little Cayman, B.W.I.
1-800-843-2177
(412)834-4064 PA./Alaska

technique and equipment when taking any gamefish. No one can claim fame or satisfaction from letting a wounded fish get away.

Pound for pound, halibut provides more white fillet meat than any other sport fish I know of. Cleaning it is a snap. Cut a straight line starting from behind the gill pad along the spine to the tail. Then carefully fillet close to the rib bones toward the dorsal fin. Cut the bottom fillet out in the same manner. Flip your fish over and repeat the procedure. The bottom side fillets will be slightly thinner, but what you end up with is four beautiful fillets with very little waste.

After carefully skinning your fillet, wipe the meat clean with paper or a cloth towel. Avoid washing your fillets with fresh or saltwater. Many salty old halibut fans believe this will remove some of the natural flavor. Whether you dine with your dive buddy or presidental dignitaries, this tasty cuisine will impress the most demanding seafood connoisseur.

LAFFERTY/PARKWAY

Richard F. Lafferty has been promoted to executive vice president and general manager of Parkway/Imperial. He will be responsible for the sales and manufacturing operations of all product lines. Parkway and Imperial merged last year.



Lafferty joined Parkway ten years ago. Prior to that he worked in the chemical and rubber manufacturing industries, including eight years in Brazil with Borden Chemical Company. He has a B.S. in chemistry from Southeastern Massachusetts University.

For information, contact Parkway/Imperial, 241 Raritan Street, South Amboy, NJ 08879.

HYPERTECH INC.
UNDERWATER VIDEO SYSTEMS

PROFESSIONAL QUALITY HOUSINGS FOR MOST VIDEO EQUIPMENT

DEMO TAPE AVAILABLE



CALL FOR FREE BROCHURE 1-800-782-4448
P.O. BOX 10513, POMPANO BCH, FL 33062 (305) 782-4448

Alpha Beta Gamma...

In the beginning you could dive almost anywhere and see reefs and walls that no one else had touched. No More! Today, everyone has already been there ahead of you. Unless you come to Grand Turk.

Just an hour and a half southeast of Miami is hidden some of the most untouched diving left in the Caribbean. In less than 25' our wall drops away so quickly it snatches your breath while Black Corals as thick as a forest grow just 15' below the drop.

And Beaches? You've heard of someone else's Seven Mile Beach? Ours is Eight! And there's hardly a diver on it.

Kittina Hotel—Turks & Caicos Islands
4197 Braganza Ave, Coconut Grove,
FL 33133 · (305) 667-0966

Omega—Diving Service of Grand Turk
8420 SW 133 Ave RD, Suite 319
Miami, FL 33183 · In the U.S.: (305) 385-0779
800-843-7544

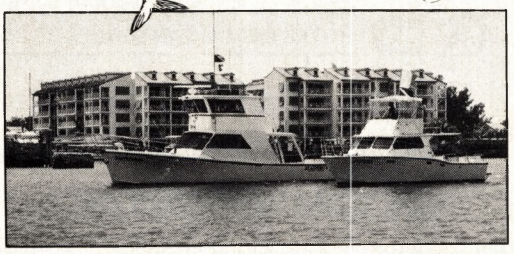
"Omega. The Last Name in Diving"

©1986 Steve Lucas & Associates

KEY WEST

"Where You Can Stay Wet Til The Sun Sets"

Seasports DIVE CENTER



Come stay with us on our own special island. Enjoy: Wreck dives, lobster dives, spearfishing trips. Dive with us in Key West where we feature a unique and festive island with some of the most spectacular diving in the Florida Keys. Enjoy stunning sunsets where local people and colors enchant you. Complete travel arrangements for your vacation.

This Simonton Court is located in the heart of historic old town Key West

Key West Style Package

$69.95 PER PERSON DOUBLE OCC (MID WEEK ONLY)

$74.95 PER PERSON DOUBLE OCC (WEEKENDS ONLY)

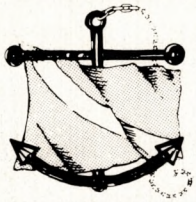
This package includes hotel accommodations, 2 location 2 tank dives including tanks and weight belt.

For Friendly, Professional Service

CALL (305) 294-6172 • 294-6224

101 Margaret St., Land's End Village, Key West, FL 33040

Dive the Best-Kept Secret in the BAHAMAS!



New Providence Divers

Complete Rental of Equipment Available from Tanks to Cameras

Our qualified personnel will guide you through schools of rainbow-colored fish, by gardens of hard and soft corals, around the **James Bond** movie wrecks and underwater sets from **Cocoon, Splash, Wet Gold** and **Twenty-Thousand Leagues Under the Sea.** Dive alongside the dramatic walls, caverns and tunnels forming the 6000 foot deep channel, **"The Tongue of the Ocean."** 90′ to 100′ visibility makes our diving a photographer's dream! Whether you favor macro studies of multihued sponge and coral formations, or wide-angled shots of large and graceful marine life such as the rays and porpoises that accompany our dive boats, we can accommodate you.

●NEW BOATS ● NEW TANKS

For Information or Reservations Call Collect:
THE UNDERWATER CONNECTION
(414) 251-8283

Sail and Dive the Virgins
on your chartered yacht.
UNLIMITED DIVING!
DELUXE STATEROOMS
GOURMET MEALS OPEN BAR
WINDSURF - WATERSKI
ALL GEAR PLUS COMPRESSOR
8 DAYS/PER PERSON
$700 - $900
PLUS AIRFARE
CALL FREE TO VIRGIN ISLANDS
800 524-2005
VIRGIN ISLANDS SCUBA/SAIL CHARTERS
Box 10986 • St. Thomas • U.S.V.I. 00801 (809) 776-2860

BROWNIE'S THIRD LUNG
THE JOYS OF **UNLIMITED** AIR
Clean, SURFACE-SUPPLIED air. Deck mounts and floaters.
EIGHT gas and electric MODELS.
FREE brochure
Call Today: 800-327-0412 * FL: 305/462-5570
Write: 940 NW 1st St., Ft. Lauderdale, FL 33311



NEPTUNO DIVERS
HOTEL MESON SAN MIGUEL

Listen...it's telling you to bring a friend to Cozumel.

CONTINENTAL

There's a seductive call in the seashell. "Come away with me," it's whispering, "Come away to Cozumel."

We know you're going to yield to its call. And when you do, bring a friend. Now, two can enjoy a Cozumel diving holiday for the price of one at most other high priced islands.

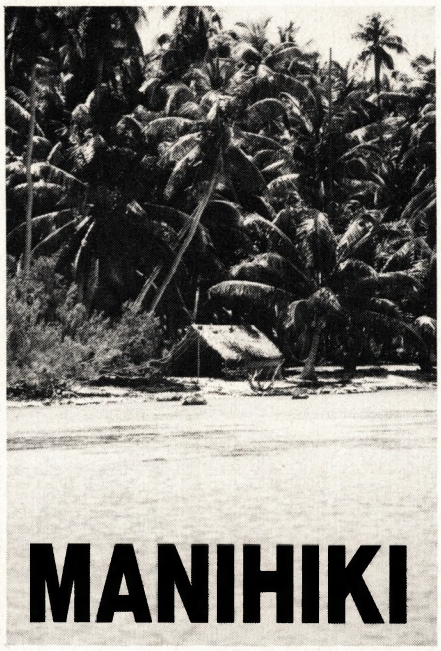
So, bring a friend. Come more often. Or just stay twice as long the first time. Cozumel. The seashell is calling.

8 DAYS/7 NIGHTS 11 DIVES $299.00*

Call our U.S. rep toll free for all the answers and a copy of our full color brochure:

1-800-282-4198, then 4440 or 1-800-468-6224
In Florida: 813-371-3196 In Texas: 713-468-6211

*Per person, double occupancy, includes downtown accommodations, guided dives with professional divemasters Miguel Leon and Alex Canto, lunch on dive days, weights, unlimited free use of tanks, free entrance to Neptuno Disco, 15% Mexican Tax, and 10% cash discount at our famed Acuario Restaurant. Air fare not included. Packages at other major hotels are available.



MANIHIKI

South Seas Island Paradise

TEXT AND PHOTOGRAPHY BY GEORGE NOWAK

For me, it has always been just a dream. Since the first time I read of the mother of pearl divers of the Northern Cook Islands in National Geographic, I have longed to visit these atolls and, if at all possible, dive with the locals. Well, it was just a dream until last September, when it became a reality. Along with a few friends, I chartered a yacht and visited these remote, beautiful pearls of the Pacific Ocean.

Manihiki, for us, was a six day sail that started from the island of Aitutaki. On our journey, we made stops at Palmerston and Suwarrow atolls. Now, if you want to find these islands in your handy atlas, look halfway between Tahiti and Fiji, north of Rarotonga and east of Samoa. Those tiny dots are the Northern Cooks.

Our arrival marked the second visit by a yacht in nine months and as good a reason as any for celebration. So, pigs were roasted, flowers picked and ukuleles tuned. Ben Ellis, the local CAO (Chief Administration Officer) gave us strict orders—with a big smile on his face—that the feast would begin at 7:00 pm. Great, oh, just great. Here I travel halfway 'round the world and it's back to the old grind—sing, dance, drink and party—I wanna go diving in the lagoon!

"Well, you see Okatai Ronga," Ben informed me. "He is the chief of the Island Council and in order to dive the lagoon, you must get his permission."

So, I went looking for Okatai.

Manihiki is an atoll made up of 39 islands. Its lagoon is about five miles across. It's your classic tropical atoll. Coconut trees hug the shores of the smooth lagoon. There are thatched huts, outrig-

ger canoes and beautiful smiling Polynesian people. There is no airstrip and no ships stop here regularly, with the exception of the out-island coconut freighter and, from all we heard, it's very irregular.

There are no scuba diving facilities on the island, no hotels or bars. They do have several churches and a few small shops and some of the best basket weavers in the Pacific. Pearl shell diving and copra are the two main sources of income. And, these two are not what they were in their heyday.

Cultured pearl farms are also found on Manihiki and one such farm belongs to Tekake Williams, who holds the island record for free diving to 180 feet. The locals say at one time this was a world record.

After a few hours of strolling through the main village of Tauhuna, I finally found Okatai, but he would only give us permission to dive the lagoon if we stayed and had a drink of fresh coconut water first.

His son climbed an 80 foot tree and sent down a dozen or so green nuts. Aahh, it was cool and refreshing. Mitua Pouri joined us for our coconut cocktails. I could tell the moment I saw him he was a diver. He had the look I expected—a big, round chest, strong powerful legs and like everyone else, a smile as wide as the lagoon.

As a side job, Mitua was also the local constable. I couldn't imagine why a peaceful spot such as this would need a police officer. Well, Mitua informed me there was no such thing as major or even minor crime. It was just that the home brew affected the islanders in a bad way every once in awhile. Home brew? Mitua went on to explain that this is made from coconut water, yeast and malt, fermented a few days. This stuff hits you like a coconut falling from an 80 foot tree. There is no real jail, but if necessary, Mitua has a set of handcuffs and plenty of coconut trees to tie a rowdy native to.

This was all interesting, but when were we going diving? Well, Mitua told me he had two more hours left on his shift as constable and after that we could meet at the edge of the lagoon. This gave me time to accept Ben Ellis' invitation to visit the other village four miles away.

Though small outrigger canoes are a familiar sight here, many islanders have aluminum boats and small engines. It spoils the South Seas effect, but did speed up our trip across the lagoon. On the way, we made a stop at a little island. What a perfect spot—about one-half acre in size, it had a small beach and was completely surrounded by its own coral reef. "Ben this is fabulous, just let me stay here and die." "You have to ask the Chief of the Island Council," he replied. (Oh well!)

We stopped next to check Ben's fish traps. These are a maze of coral rocks near the reef. At high tide the water brings in the fish. They swim into the



A M/S AQUANAUT EXPLORER

Imagine diving in the crystal clear waters of the British Virgin Islands—right off the boat you're living on. We should rather say OFF THE SHIP! The Aquanaut Explorer is 165 ft. long, 38 ft. wide and has 6,000 square ft. of deck space, open air restaurant, bar, dive shop, photo lab, gift shop and an air-conditioned dining room. All that for no more than 44 passengers. All staterooms are cruiseship size, air-conditioned and have private bathrooms. All of the staterooms have windows! Some even have sliding glass doors and private balconies. We have TV-movies, underwater video, slide shows, music and dancing on board. We also have radio telephone for you to call home if you want to. Dive cruises are seven days and sail every Friday. All the tanks and weights are right where you need them—nothing to carry around. When you are not diving you can explore the nearby beaches and islands. Beginners can be certified in one week for just $50.00. Resort courses are only $25.00.

$895.00

Per Person Double Occupancy.

* THE ONLY CONDITION IS THAT YOU MAKE YOUR RESERVATION AND PAY IN FULL BEFORE JANUARY 15, 1987.

FOR RESERVATIONS OR MORE INFORMATION CALL

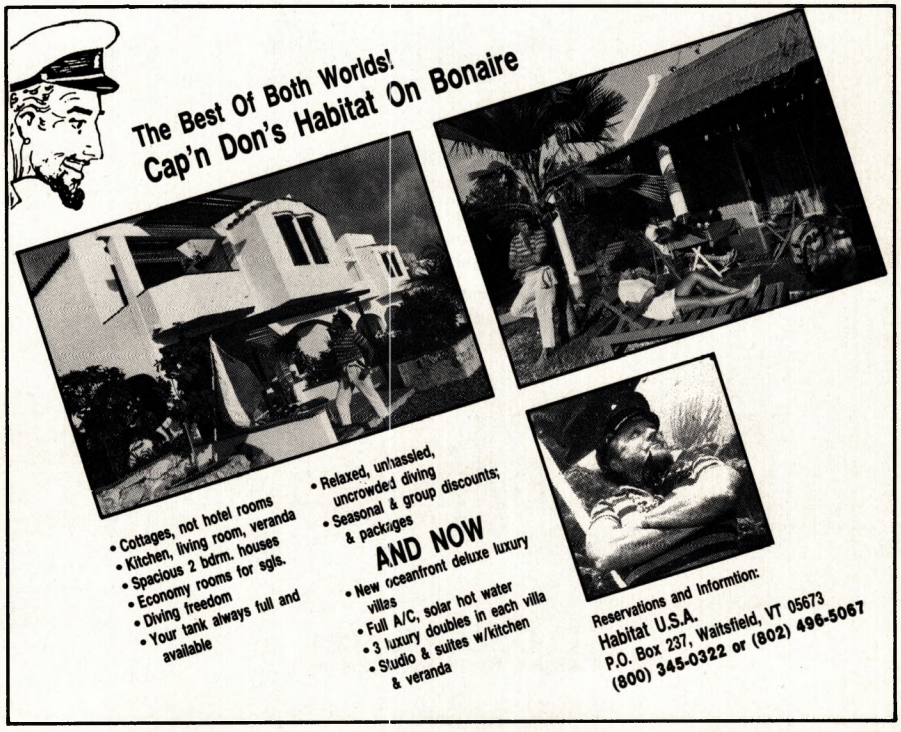
1-800-327-8223 IN FLORIDA 1-800-432-8894

MALDIVES $1975.

16 days full board, inc. 13 days unlimited diving
For information call:
800-526-1394 In NJ (201) 256-9115
The Flying Fish Diving Travel/Scuba Tours, Inc.

DIVE WITH THE DREAM TEAM

Dive the blue waters of the Bahamas aboard the M/V Dream Too! 56' of air-conditioned comfort. The alternative to large crowds!
7 Day 6 Night Pkg. $680.00
6 Day 5 Night Pkg. $580.00
5 Day 6 Night Pkg. $485.00
Join the "Dream Team"
305-723-9312



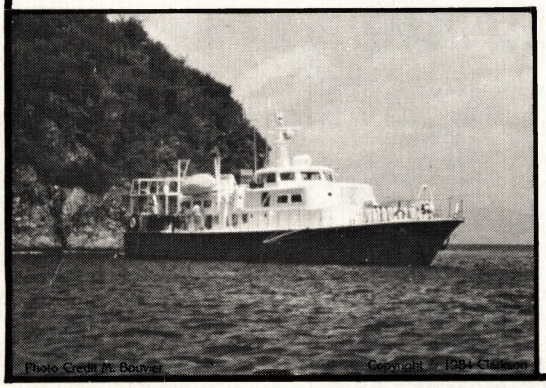
WHAT IS A TROPIC BIRD?

A. A graceful seabird.
B. The best dive boat in the B.V.I.
C. The best vacation you will ever have.
D. All of the above.

Call us toll free for the correct answer, and the answers to any other questions you have.

Tropic Bird

THE live-aboard dive boat in the British Virgin Islands.



BEST DOLLAR VALUE
12 Double Staterooms
Fully Airconditioned
Unlimited Diving
Guaranteed Diving
Night Dives
TV Movies & Games
Sun Deck & Bar

Call Toll Free
800/526-1394
800/524-2027
In NJ 201/256-9115

We're Fighting For Your Life.

American Heart Association

DIVEBOAT
CAPTAIN'S LICENSE
PASS THE COAST GUARD EXAM

We GUARANTEE Your License

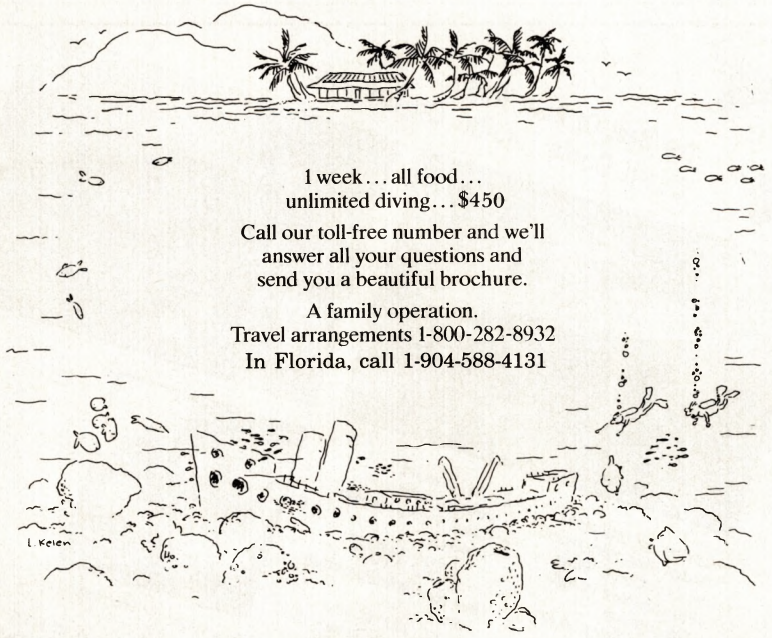
CLASSES HELD NATIONWIDE

SEASCHOOL
THE LAW SCHOOL OF THE SEA

TOLL FREE 1-800-237-8663 IN FLORIDA 1-800-282-2278

Our front yard is a wreck,

and a beach, a sun deck, a 110 foot wall...



1 week... all food...
unlimited diving... $450

Call our toll-free number and we'll answer all your questions and send you a beautiful brochure.

A family operation.
Travel arrangements 1-800-282-8932
In Florida, call 1-904-588-4131

COCOVIEW RESORT
Roatan, Bay Islands, Honduras

WaterWorks—Chicago

MANIHIKI

maze, but can't find their way out of the endless circles and spirals. When the tide goes out again, they're trapped. Without even getting his feet wet, Ben put a net in the water and got a few large parrotfish.

By now, I could clearly see the small village of Tukao, but of course Ben had another stop to make. He showed me a string of pearl shells at one of the island's two cultivated pearl farms. The farm lies in about 30 feet of extremely calm, clear water. Each string has about 12 shells on it. These have all been implanted with mico-pearls by technicians from Japan. One to three years later a full sized pearl is formed. Along with the copra and mother of pearl shells, these are shipped



Manihiki is an atoll made up of 39 islands.

to Japan, Hong Kong and Samoa.

In the small village, we ran into a group of islanders, a dozen or so, who were having the greatest time. They were sitting on a hill of coconuts and singing. Some sprawled on the ground. It was clear to me the home brew had taken its effect; it was not unlike Cayman on a Saturday night.

On the way back to the main village, Ben dropped me off at Mitua's canoe. With a wave and a reminder about the evening's feast, he went on his way.

I slipped into the warm waters of the lagoon and looked for the bottom. All I saw was deep, deep, deep. Just how deep? Well, Mitua informed me it was about 100 to 120 feet.

Now readers, I have a confession to make. Though I live in the Cayman Islands and have produced two demented albums for scuba divers, I am not a scuba diver. I am a freediver. So, here in the Manihiki lagoon with a local pearl diver I was in aquatic heaven—as excited as the scuba divers I meet daily in Cayman who dive our drop-offs and wrecks.

While Mitua inhaled and prepared for his first dive I asked about sharks. "We have only friendly sharks here," he said, "no problem." Friendly sharks? He could see I was puzzled and added that the only sharks in the lagoon were small and if



R. STEWART & CO. © 1986

The "divers' resort" on the beach... La Ceiba. Where first-class waterfront accommodations are conveniently located just yards from diving facilities.

Let the full-service professionals at Fantasia Divers lead your next adventure with daily reef trips and unlimited beach diving. Individual and group packages available.

The La Ceiba/Fantasia experience.

Call toll free (800) 336-DIVE
IN TEXAS (713) 558-9524
or (800) 621-6830
IN TEXAS (214) 669-1991

Divers Dream Package

Our own boats and Dive Masters
3 nights with lavish breakfasts
. . . 3-two tank dives . . .

$99 Per person dbl. occ.
3 night minimum

A little info . . .

About 4 miles offshore from Hawk's Cay lies the largest living coral barrier reef in the U.S. protecting every type of tropical fish & sea life imaginable.

Hawk's Cay was also once a refuge for Spanish pirates in the 1800's . . . who knows what other treasures may be in store for you at this tropical paradise.

Hawk's Cay Resort and Marina

- Sailing
- Fishing
- Tennis
- Golf
- Dolphin Training Center
- Glass Bottom Boat
- 4 Restaurants/Night Club
- 60 Item Buffet Breakfast

◆◆◆◆ . . . AAA RATING

Mile Marker 61, Marathon, Florida 33050-9757
Ph. (800) 432-2242 (Fl.) / (800) 327-7775 (Out. Fl.)

they come too close "we just kick them." He left me with that thought and grabbed the lead weight attached to the side of the outrigger and made his first descent.

As for me, I just floated and watched Mitua disappear into the dark, blue, deep below. At least two minutes went by and then, in the deep, I saw the yellow rim of his facemask as he slowly made his way to the surface with two mother of pearl shells in his hand.

When his head popped out of the water, he never gasped for air, he never coughed up seawater. He just had that big smile on his face and went on to explain that he makes about $1.40 per pound of shells.

To say I was impressed is putting it lightly. The excitement is hard to explain. From the first time I read about these divers in a 1967 National Geographic, I had dreamed of this moment. While I daydreamed, Mitua descended again and disappeared. This time he stayed a bit longer. Finally, I spotted his broad body surfacing in what looked like a film running in slow motion. I went down with him on his third dive—about halfway I figured (well, maybe, almost halfway). I spent nearly one hour watching Mitua.

Before we went back to the village, we stopped off at Tekake Williams' underwater pearl shell farm. Mitua reminded me not to touch. We snorkeled and occasionally dived in, around and through what I learned later were approximately 165,000 strings of shells.

This was more my kind of depth. The farm was in 30 feet of water and in this area closer to shore, with a white sandy bottom and the gin clear water, I was much more comfortable.

Later, back in the village sipping a little home brew, I noticed it was nearly 6:00 pm. Mitua excused me, so we could both prepare for the big feast. After a quick shower I got to the party just in time.

I was met by Ben Ellis' big, round, lovely Polynesian wife who put several necklaces of fresh flowers around my neck.

"Here," said Ben, as he plunked a guitar in my lap. The captain had informed him I did a bit of singing. Now that was the last thing I wanted to do on vacation, but these people had been so wonderful to me, I couldn't refuse. I asked for requests and one of the islanders shouted "Bob Marley!"

I reggaed my way through several songs and then the food was spread out—roast pig, fried fish, boiled fish, raw fish, coconut cakes, rice, papaya, grilled fish, curried chicken, octopus, bananas and more!

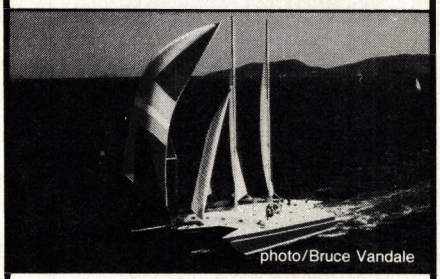
I ate, took a few breaths of the clean South Pacific air and ate again. I washed it all down with extra strong New Zealand beer and Ben introduced the local postmistress who did the Cook Islands' version of the hula for us. Soon everyone joined in and did their version of the hula.

It was a fabulous party and I am not sure who was more excited about the

TRIMARINE

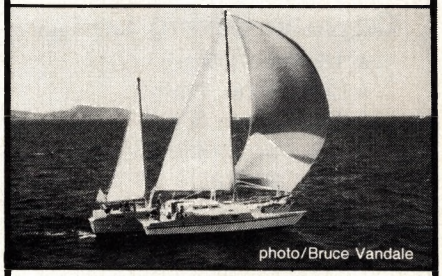
Yes, we are the most experienced company in the British Virgin Isles—the owners and operators of the world famous

LAMMER LAW


photo/Bruce Vandale

But there are two other Trimarans you should know about if you have a small private party, or like diving with fewer people. You'll get the same high standard of food, service, and diving at a slightly lower cost! The 56′ 8 passenger

MISTY LAW


photo/Bruce Vandale

and the 48′ 6 passenger

TRESPASSER



Whichever one you choose you'll leave us saying "Nobody does it better" and you'll be back!

Call Toll Free

800-648-3393
800-448-8866

or write-Trimarine
Homeport St. Thomas
USVI 00802



WE WERE IN KEY LARGO BEFORE 1 BC*

Even before the Christ arrived our only goal was for you to have fun. Now we're so sure you'll like our style we guarantee it.

How? No fun. No pay! If you don't like anything about your day on any AMERICAN Diving Headquarters boat, just stay on board. You'll get a refund as soon as we get to the dock!

We're the most experienced in the Florida Keys and have taken a lot of divers out to see the best of Pennekamp. Sites like the world famous Christ of the Abyss. We've been at it so long that when the statue arrived at America's N° 1 dive destination in 1963 we were already celebrating our first birthday!

AMERICAN Diving Headquarters. For 26 years, the only place in Florida where you're guaranteed to have fun diving!

Harry Keitz's AMERICAN Diving Headquarters
Key Largo (305) 451-0037, Miami 246-1252, Route 1, PO Box 274-B, Key Largo, FL 33037
For pkg. information: US TOLL FREE (800) 634-8464 FLORIDA TOLL FREE (800) 322-DIVE

*BC's (Buoyancy Compensators) weren't invented until 1970.

FOR SALE

Grand Cayman, B.W.I.
"Opportunity of a Lifetime!"
Cayman Diving Lodge

- ★ 16 room Diving Lodge
- ★ Dive Shop, Hotel, Restaurant, Bar
- ★ Tax-free stable island
- ★ Very profitable for diving couple

Original price of $700,000 reduced to $550,000 for IMMEDIATE sale. TERMS.
Call (809) 949-2022

GET WRECK-D IN MIAMI

THE WRECK DIVING CAPITAL OF THE WORLD

- Over 30 major wreck sites
- Bimini trips • Reef dives • Nite dives
- Hotel/dive packages

For color brochure call or write:
PISCES DIVERS • 1290 5th St.
Miami Beach, Florida 33139
(305) 534-7710
1-800-537-DIVE

PISCES DIVERS MIAMI BEACH

COZUMEL DIVER'S RESORT

Galápago-inn

- 34 A/C Ocean-front Units
- Freshwater Swimming Pool
- New "Fat Grouper" Restaurant Overlooking the Ocean
- Complete Dive Shop on Premises
- Five Custom-made Dive Boats
- Friendly Staff

PACKAGES FOR INDIVIDUALS AND GROUPS
DIRECT FLIGHTS FROM HOUSTON, DALLAS, MIAMI & ATLANTA

S. C. U. B. A.

GALAPAGO INN
P.O. BOX 289
COZUMEL Q ROO MEXICO
PH. (011-52-987) 20663

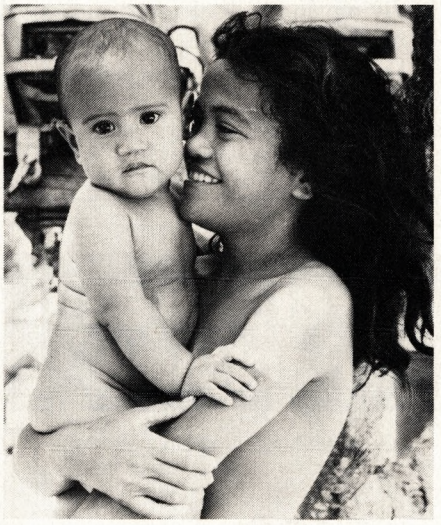
COZUMEL

FOR RESERVATIONS & INFORMATION
1-800-847-5708
AQUA-SUB-TOURS
P.O. BOX 810306, HOUSTON, TX 77281
(713)783-3305

MANIHIKI

whole affair—our crew or the islanders who rarely see outsiders on this atoll.

As Mitua walked us back to the cement dock I asked about a good spot for spearfishing the following day. Mitua said, "No spearfishing tomorrow—it's Sunday, no one goes into the lagoon on Sunday. That's taboo." Then he added that an old island legend has it that "the friendly sharks are unfriendly on Sunday." Well, on that note, I cancelled the spearfishing thought. Instead, I sat in church the following morning and listened to the most beautiful singing I have heard anywhere. Every islander in the church sang loud, crisp and clear, never missing a note while naturally harmonizing. The reverend switched his sermon from the normal Polynesian dialect to English since he had visitors that day.



The people of Manihiki are very friendly. The arrival of a boat is a big occasion.

The lagoon was quiet with the exception of the few large frigate birds overhead and the sound of the trade winds flowing through the coconut trees. Sunday surely is the day of rest in Manihiki.

The next morning, after breakfast, we sadly pulled anchor and prepared for a 680 mile voyage to Samoa. Outriggers and aluminum boats filled with islanders came by to wish us farewell.

Ben Ellis was still onboard, singing, as the mainsail went up. Gifts were brought aboard. There were woven hats, necklaces of shells and flowers, and just as we waved a final goodbye, one last outrigger came by the ship.

I was passed an old, wrinkled brown bag. Inside were six mother of pearl shells and a note from the chief of the Island Council:

"Dear Friend,

This is not a very good pearl shell,

but please take it as our love to your journey to our island. Hope to see you again.
Okatai Ronga
Tauhuna, Manihiki
Cook Islands"

My arm was already sore because I had pinched myself so many times on this trip to make sure I wasn't dreaming. After reading the note I gave myself one last pinch. I will never forget Manihiki and its wonderful, beautiful people. And Okatai: I will be back.

Note: To get to Manihiki, we chartered the 78 foot ketch *Stormvogel*. This boat can sleep six comfortably and it offers a fabulous voyage, including three meals daily, with plenty of wine and beer. We flew from Los Angeles to Tahiti, then to Rarotonga and via small commuter plane to Aitutaki. We were dropped off in Samoa and from there traveled via Hawaii to Los Angeles.



George Nowak, "Barefoot Man," is a well know Cayman entertainer and songwriter.

For more information about visiting the Northern Cooks or any other South Pacific destination write to: Ocean Voyages, 1709 Bridgeway, Sausalito, California 94965.



"I *am* on the bottom...darn it!"

Dive B·E·R·M·U·D·A

"THE BEST SHALLOW WATER WRECK DIVING IN THE WORLD!"

SOMERSET BRIDGE HOTEL & SKIN DIVING ADVENTURES

— OFFER YOU —

"TROPICAL DIVING" only 1½ hrs. from the East Coast!

THE HOTEL

Large, attractive efficiency units, all with A/C and phone service. Pool, jacuzzi bath, restaurant and bar. Welcome Rum Swizzle Party on Mondays. Dive Boat service from the Hotel dock and more. Major Credit cards accepted.

PACKAGES FROM:

$400

PER PERSON
DOUBLE OCCUPANCY
Includes:
5 boat dives, tank, pac & wts. 5 nites accomodation, Mon. Rum Swizzle Party and more!

THE DIVING

Bermuda's most established diving operation. PADI, NAUI, SSI Facility. 3 large custom dive boats, 1 and 2 tank trips to wrecks and reefs. U/W Cameras. Friendly, professional instructors and crew. Diving for novices to pros!

1-800-468-5501

somerset bridge hotel P.O. Box SB 149 Sandy's 9-20, Bermuda

DAVE McLEOD'S SKIN DIVING ADVENTURES, LTD. P.O. Box SN 165 Southampton 8, Bermuda

BRITISH VIRGINS & ST. LUCIA

Our two Caribbean locations provide better waters for diving and more luxury for your vacation. Underwater Safaris and Scuba St. Lucia offer all the services you'd want. We package these plus lovely accommodations and the lowest airfares—all at very competitive prices. Write or call: The Moorings, Suite 402-D, 1305 U.S. 19 South, Clearwater, FL 33546. Toll-free **1-800-535-7289**; in FL 813/535-1446.



THE MOORINGS
Mariner Inn, Tortola - Marigot Bay, St. Lucia

BONAIRE

DIRECT DEPARTURES FROM PHILADELPHIA and BALTIMORE
STARTING APRIL 5, 1987

$989. "DIVI INCLUSIVE" PKG. DIVI FLAMINGO BEACH HOTEL & CASINO
Includes 8 days/7 nights, pp, dbl. occ., r/t air, unltd. diving, meals, bar beverages, r/t airport/hotel transfers, all tax & serv. charges and departure taxes.

$649. 8 days/7 nights, pp, dbl. occ., r/t air, unltd. diving, tax & service charge on room, diving & transfers and departure taxes.

800-367-3484
Prices subject to change.

DIVI HOTELS MARKETING INC., 520 W. STATE ST., ITHACA, NY 14850, 607-277-3484







COME LIVE IN LUXURY ON BONAIRE

CONDOS FOR SALE & RENTAL

- Beautiful beachfront property, every unit with balcony facing the sea.
- Studio, one, two, and three bedrooms available with full kitchen.
- Diving and snorkeling right off the beach.
- Underwater photography and video facility is now in operation.
- Full service dive shop, PADI Instruction with Andre Nahr.
- Visit the Green Parrot—our brand new oceanfront restaurant.
- Coming soon . . . complete watersports activities, swimming pool, tennis and shopping.

Sand Dollar Beach Club
A Condominium
Bonaire, Netherland Antilles

For Sales Information Contact Sand Dollar:
50 Georgeton Road, Bordentown, NJ 08505 (609) 298-3844
For Dive Package & Rental Information Call:
The Travel Barn at (609) 298-2298

How to get high quality athletic wear & pay ½ of what you'd expect

Get your FREE color catalogue of Sport Europa's factory direct athletic clothing.

Includes following sports

- Running
- Cycling
- Swimming
- Snorkel
- Scuba
- All Around

To receive our new catalogue
CALL US TOLL FREE
1-800-327-7031
In Fla. (305) 821-4000
Mon-Fri - 10:00 AM-9:00 PM
Sat - 10:30 AM-6:00 PM
or send coupon to
Sport Europa
4557 SW 71 Ave., Miami, FL 33155

NAME

STREET ADDRESS

CITY STATE ZIP

PDIC
INTERNATIONAL

Remember this name when you want to become a diving Instructor.

When you need a good teaching tool, make sure you PICK the right ONE. There is one name you won't want to forget—PDIC. Call us today!

OCC Center—CMAS
P.O. Box 772 (717)342-1480
Scranton, PA 18501 or 342-9434

INVESTOR WANTED

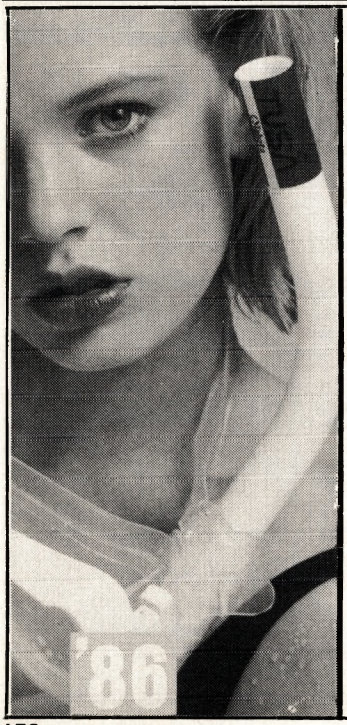
Large diving yacht, chartering four years in Caribbean's best/hottest diving destination. Established, profitable, excellent tax advantage. Working partner with extensive, cabinetmaker/refinishing experience considered. Substantial investment necessary.

(713) 999-4852



DIVE ABACO!!

With legendary Skeet LaChance. 150 miles of unspoiled Barrier Reef. Contact P.O. Box 555, Marsh Harbor, Abaco, Bahamas **1-809-367-2014**



Tabata TUSA mask & purge snorkel *set* only $39.50

This is *NOT* a misprint. Black Bart's Aquatics is offering this mask & snorkel SET at the astonishingly low price of only $39.50, plus shipping & handling to the first 500 persons who write before May 30, 1987. Limit two sets per address.

Retails for $81.00

One of our most popular & fastest selling pair, this set normally retails for $81.00.

But because of a large special order of two daring colors, we're able to give it to you at a price that matches the color: *HOT!*

Orange & Green

The mask & snorkel set is available in either a fluorescent *green* or fluorescent *orange*. Who would have thought snorkels & masks could be so daring?

The Mask

The Tabata TUSA Mask (TM-3900Q) is Tabata's most popular mask. Manufactured out of a specially compounded crystal silicone, it features a double feathered edge and low volume.

The Snorkel

The Tabata TUSA Snorkel (SP-160Q) is fitted with a unique purge valve system and offers easy expulsion of water with a minimum of effort.

How to Order

Please specify the color mask & snorkel. To order by MAIL, send name, address, phone number and $44 ($39.50 + $4.50 shipping & handling) to: Black Bart's, Mask & Snorkel Offer, 34145 Pacific Coast Hwy., Dana Point, CA 92629.

To order by PHONE, please have your VISA, M/C, Discovery or PADI card ready. In CA call 1-800-367-7776. Outside CA call 1-800-348-8379.

Name

Address

City, State, ZIP

Credit Card # Exp. Date

Signature

Color

BLACK BART'S AQUATICS

THE NORMANNIA

(Continued from Page 103)

The bow section rises 80 feet above the sand and the steam anchor windlass is still in place on the deck. Some of the deck plates are missing near the sand, allowing entry into the bow section.



Years on the ocean bottom have broken up the *Normannia*. Wreckage is scattered in a straight line running east to west.



Divers swim over the stern of the *Normannia*. May through October, the U/W visibility on the wreck is usually 75 feet or more.

From the bow section, the port and starboard sides of the midships section are no more than four feet high and the area is strewn with wreckage, including brass artifacts. There is a large hold that contains some machinery and what appears to be the remains of mahogany logs. On the stern side of this hold are two boilers and an engine, features that provide the greatest relief in this section. Between the engine and stern lies another hold containing logs.

The stern tilts slightly to port. There is a railing that runs around a portion of the deck and a few pieces of machinery nearby. At the base of the stern, near the sand, is an opening into the steering engine room. Some of the most interesting artifacts may be found here. Sweeping away the sand and debris from the bottom of the room exposes antique beer bottles, which make nice souvenirs of the dive. Two blades of the *Normannia*'s iron

propeller may be seen behind the stern.

From May through October, the water temperature on the wreck is in the upper 70s to low 80s (°F) and the visibility is usually 75 feet or more. The wreck site is covered with beautiful tropical marine life. Colorful corals and sponges, blue angelfish, butterflyfish, blennies, groupers, African pompano, manta rays, slipper and spiny lobsters, anemones, long-spined and pencil urchins, seafans and sea turtles are but a few of the thousands of creatures that have made the *Normannia* their home. Underwater photographers, artifact collectors or sightseers will find the *Normannia* one of the most memorable dives anywhere.

Dive charter boats operating out of Wrightsville Beach, North Carolina carry divers to the site.

WHERE TO GO



VISA MasterCard

Low cost advertising that will increase your profits! For info call 213/854-2700. To place your order call toll-free 800/231-4053 (outside CA, U.S. only). VISA/MC

ENJOY UNDERWATER PHOTOGRAPHY with JIM & CATHY CHURCH

at Sunset House, GRAND CAYMAN

Imagine yourself coming to the stern of the dive boat for a cup of hot soup and a fresh tank. Jim helps you with equipment changes and film reloads. Cathy is waiting for you underwater with a neat critter, and Jim gets you ready to photograph it. This is just another typical dive in the Jim & Cathty Church U/W Photo Course.

Multi-Level, Seven-day courses. For Beginning or Advanced U/W Photographers May—Sept. 1987



- I appreciate your patience, your humor, but most of all your sincere regards for other people. Thank you for a wonderful week. (Rebecca Harrington)
- You are both wonderful teachers. No wonder you have so many repeaters. (Marj & Ted Pullman)
- I love your diving style! I got far more good pictures per dive than I could ever get on regular tourist boats. (Stewart Bakst)
- . . . Courses run by Jim & Cathy . . . continue to receive high marks from students. UNDER-CURRENTS, VIII, #12.

For details write: **Jim & Cathy Church**
P.O. Box 80, Gilroy, CA 95021-0080
or phone: **(408) 842-9682**

Reef Runner Honduras Bay Islands

43′ Live-aboard Yacht

Air conditioned & compressor equipped for 6 divers. Week long charter specials as low as $420.00 per person.

1-800-282-8932 FL (904) 588-4131
P O Box 877, San Antonio, FL 34266

DON'T SMOKE If You Dive

THE BRITISH VIRGIN ISLANDS



YACHT CAMELOT . . . Let **Don** and **Mavis** pamper you aboard their luxurious Morgan Out-Island 51ft. They'll show you the finest dive sites in the Caribbean. Enjoy incomparable gourmet fare and great sailing. An unforgettable vacation for 4-6 guests!

VIRGIN ISLAND SAILING
P.O. Box 146, Road Town
Tortola, British Virgin Islands
TOLL FREE (800) 648-3393 or (800) 448-8866

THE BEST OF BELIZE



Unlimited diving on Belize's greatest Reefs from 75 foot *Isla Mia*. Lighthouse Reef, Blue Hole, fabulous dropoffs.
Superchargers for dive stores available.

1966 TWENTY YEARS OF SERVICE TO DIVERS 1986

See & Sea
TRAVEL SERVICE, INC.
50 FRANCISCO ST./STE. 205
SAN FRANCISCO, CA 94133
TELEPHONE (415) 434-3400
TELEX 278036 SEAS UR

Black's Island Gulf of Mexico

CAMP NAUTILUS

Sea Camp for boys ages 8-16, 4-8 weeks. PADI Scuba Certification for boys 12-16. Sport Fishing, Sailing, Skin Diving, and much more. . . For more information, write: **Camp Nautilus, Black's Island, Box 945, Department D-2, Port St. Joe, FL 32456.**

SALE BELIZE 660 ACRES

3 mi. along Caribbean & 3 mi. along Deep River. Clean, sandy beach. Excellent dive & fishing area. Near Blue Hole & Reef. Mayan Ruins.

$425K, terms.

CALL: 305/743-5372

ewa marine

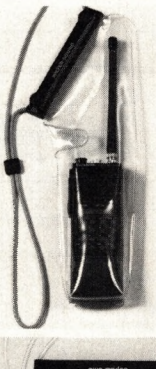
Tough, flexible, transparent housings for electronics, cameras, documents, charts and survival equipment.





ewa survival pouches

Tough, transparent, in 6 sizes, for protecting valuables, charts, first aid, survival gear, cameras and film, firearms, ammunition and flares. Guaranteed to be 100% airtight.

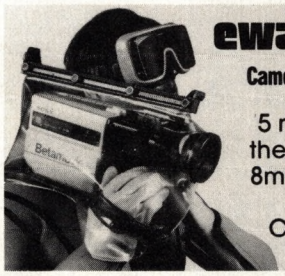


ewa watersound
for portable VHF radios

Protects portable VHF radios in any weather. Send and receive messages right through the flexible housing. With built-in finger tip control. Protect your hand-held radio on river rafts and boats.



ewa master c
Compact camera housings.
2 models fit most compact, autofocus, and disc cameras. Underwater tested to 30 ft.



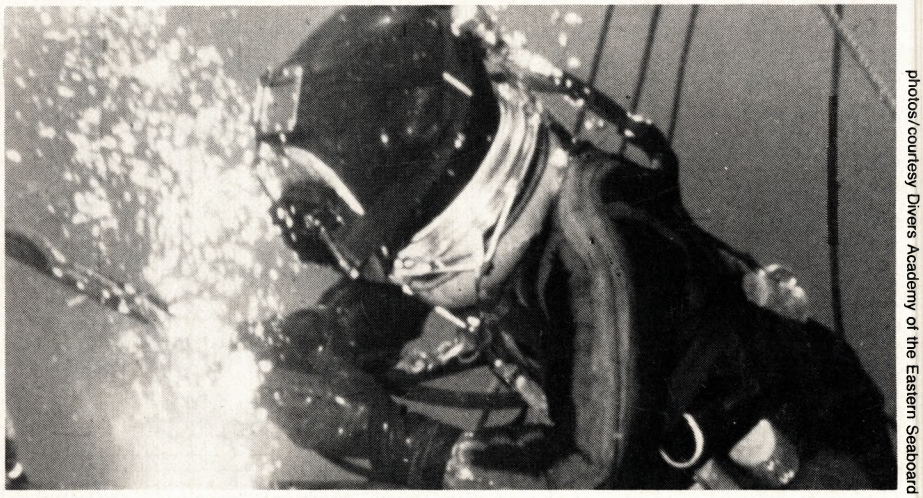
ewa video
Camcorder housings.

5 models to fit the latest Beta, 8mm, VHS and VHS-C Camcorders.

At your photo, dive, marine or sporting goods store.
Call or write for free information to:

Pioneer Marketing and Research
216 Haddon Ave., Westmont, NJ 08108
1 (800) 257-7742, 1 (609) 854-2424





photos/courtesy Divers Academy of the Eastern Seaboard

Wet stick welding is a skill commercial divers find useful. Right: A Divers Academy student uses an underwater cutting torch.

DIVERS ACADEMY Of The Eastern Seaboard

High Tech Diving Under The Delaware

BY E.R. CROSS

The city of Camden, New Jersey makes two important contributions to the worldwide diving industry. First, a very large diving supply company, from which many commercial divers obtain their equipment, is there. But, of even greater importance to *prospective* commercial divers, is that one of the most active schools in the business is also in this river port. The Divers Academy of the

Don't leave shore without us.

HELIX SPECIAL NIKONOS PACKAGES

Nikonos V Pkg. w/35mm f2.5, dive light and case (18x13x8") ..... $ 449.00*
Nikonos V Pkg. w/35mm f2.5, dive light, case, Aquaflash 28 TTL and light mount 858.00*
Nikonos V Pkg. w/35mm f2.5, Nikonos SB-103 and case (18x13x8") 769.00*
Nikonos V Pkg. w/35mm f2.5, dive light, Nikonos close-up outfit, Aquaflash 28 TTL, light mount and case 987.00*

**Qualifies for Nikon USA product offer!*

HELIX UNDERWATER PRODUCTS

HUP-200 dive light ..... $ 14.95
HUP-201 dive light w/high intensity kit 19.95
6" EO to Nikonos I/II 63.50
6" EO to Nikonos III/IV/V 63.50
10 ft. EO ext. male/female 107.00
20 ft. EO ext. male/female 116.00
Helix double bracket set for SB-102/103 ..... 159.95
Helix double bracket only 67.50
Audible water detector kit 29.95
Audible water detector kit w/LED 39.95
Equipment case w/die-cut foam for Hanimex or Sea & Sea 35mm w/slave strobe 23.95
Equipment case w/foam (18x13x8") 44.95
HL-4000 movie/video light (50w/90 min., 100w/49 min., 175w/27 min.) 695.00
HL-7000 movie/video light (100w/75 min., 175w/40 min.) 779.00

Helix Universal Slave Strobe w/arm for Hanimex/Sea & Sea 110 or 35mm, Helix Auto-Marine Housing, Ikelite disc or trim case (please specify) ..... $ 98.00

HELIX AUTO MARINE II HOUSING

Tested to 100 feet. May be used with the Nikon L35AF, Nikon One-Touch, and New Canon Sure Shot.

Helix Auto Marine II Housing (please specify camera) ..... $ 99.00

HELIX AQUAFLASH 28

Designed for the Nikonos III, IV or V, the Aquaflash 28 comes with a mounting tray, arm and coiled interchangeable sync cord. 2-year limited warranty.

Aquaflash 28 (specify Nikonos I/II, III/IV) ..... $ 339.00
Helix Aquaflash 28 TTL for Nikonos V 429.00
TTL Upgrade Kit for Aquaflash 28 to Aquaflash 28 TTL 149.00
Short arm, 8" 9.95
Light mount 10.50
Wide angle diffuser 27.95

SEA & SEA

Motormarine 35 w/equipment case w/die-cut foam ..... $ 212.95
Motormarine 35 w/equipment case w/die-cut foam and Helix Slave Strobe with arm 310.95
Wide lens adapter (24mm) ... 149.95
Close-up lens (2 ft.) 37.75
Macro lens w/wand 59.35
Pocketmarine 110 ..... 119.00
Pocketmarine 110 w/Helix Slave Strobe and arm 217.00
Close-up lens (2 ft.) 32.30
Macro lens w/wand 43.10

WARRANTIED USED EQUIPMENT

Nikonos V body, mint ..... $ 289.00
Nikonos IV body 195.00
Nikonos III body 279.00
Nikonos 35mm UW lens 65.00
Nikonos 80mm UW lens 169.00
Nikonos lens case for 28mm UW and 35mm UW 9.95

Hanimex 35 Amphibian 139.00
Hanimex 110 Amphibian 139.00
Macro lens for 110 Hanimex or Sea & Sea 19.95
Oceanic 2000 w/EO and arm ... 149.00
Oceanic 2001 w/EO 299.00
Ikelite Substrobe "M" 95.00
Subsea MK150 (510v) w/EO ... 375.00
Subsea MK150 (510v) w/EO, mint 399.00
Subsea MK150 (510v) w/EO, transparent amber S.E. 499.00
Subsea MK150 (510v) w/EO ... 349.00
Subsea standard arm 39.95

BOOKS OF INTEREST

This Living Reef ..... $ 35.00
Nikonos Handbook 19.95
NEW! Beginning Underwater Photography 9.95
Mysteries of the Red Sea 34.95
Diver's Guide to Florida and the Florida Keys 4.50
NEW! Exploring Underwater Photography 16.95
Diver's Almanac CLOSE-OUT! 9.95
Red Sea '87 Calender by David Pilosof CLOSE-OUT! 4.95
The Great Barrier Reef 29.95
The Fishes Beneath Tropic Seas . 9.95

HELIX PHOTO/DIVE TRIPS!
Cayman Islands
July 4-11, 1987

HELIX®

310 South Racine Avenue, Chicago, IL 60607
312/421-6000

Underwater orders and information: 800-33 HELIX

Helix Worldwide Telex #701713 answer back: HELIX CGO UD
Qualitities Limited. Prices subject to change.
Shipping or insurance charges not included.

Call for our FREE Underwater catalog and booklist.

U.S. largest inventory of underwater photography equipment! Most orders shipped from stock within 3 business days.

STOP

Don't Buy Any Wetsuit, Drysuit, Metal Detector, Dive Gear or Mining Equipment BEFORE YOU CHECK OUR PRICES!

FREE GIANT 1987 144-PAGE CATALOG

UP to 50% OFF

– LIST PRICES –

FREE GIANT 1987 144-PAGE CATALOG

MOST MAJOR BRANDS — ALL BRAND NEW — FULL WARRANTY

ALUMINUM TANKS



80 cu. ft. with Deluxe K-Valve	$99.95
80 cu. ft. with Deluxe J-Valve	$129.95
50 cu. ft. with Deluxe K-Valve	$99.95
50 cu. ft. with Deluxe J-Valve	$129.95

(Yellow, Black, Blue, Red, Gray, Pink)

Spare Air (1.7 cu. ft.) ..... List $195 ..... Our Price $139.00

REGULATORS



	List	Our Price
TABATA – balanced	$220.00	$149.95
BEUCHAT	$119.95	$84.95
PARKWAY – balanced	$179.95	$134.95
PRO ADJUSTABLE 300	$270.00	$139.95
PRO-SUB – balanced (lifetime warranty)	$190.00	$144.00
OCTOPUS, BEUCHAT or NEMROD	$84.95	$49.95

(most other brands at 25% off list)

INSTRUMENTS & GAUGES



	List	Our Price
BEUCHAT PRESSURE GAUGE	$70.00	$44.95
BEUCHAT COMBO (Black, Yellow, Blue)	$124.95	$79.95
PRO-SUB DELUXE COMBO with compass	$155.00	$99.95
THE EDGE – Diving Computer	$599.95	$495.00
TABATA CONSOLE SCA40DX	$210.00	$158.00
SIERRA SCUBA CONSOLE	$126.50	$95.00
NEMROD PRESSURE GUAGE	$89.95	$39.95

(call for prices on all other guages)

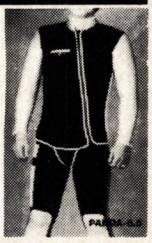
B.C. JACKETS



	List	Our Price
TABATA (900 series)	$350.00	$259.95
TABATA (700 series)	$320.00	$169.95
PARKWAY	$310.00	$159.95
PRO-SUB	$310.00	$214.95
SEA-TEC	$385.00	$285.00
CRESSI-SUB P.D.S.	$339.95	$237.95

(all BC's complete with pack & power inflator)
(most other brands available)

WETSUITS



	Value	Our Price
MARINER (plush-lined Nylon II, super stretch, Farmer John ¼", knee pads, lycra edges)	$300.00	$164.95
ECONOMY (Farmer John name brand ¼" Nylon II, stretch material all sizes, men's & women's)	$240.00	$99.95

ALL PARKWAY, MARINER, SMY, HARVEY'S, DUI and most other brands 25% off list
— Gloves, Booties & Hoods always on sale —

DRYSUITS

MOST BRANDS 25% OFF LIST

WATCHES



	List	Our Price
HEUER	25% OFF ALL MODELS	
HEUER BLACK CORAL	$412.00	$289.95
CHRONOSPORT	25% OFF ALL MODELS	
CASIO NAUTILUS with depth gauge		$59.95
CASIO G-SHOCK II		$64.95

(most other brands available)

UNDERWATER METAL DETECTORS



	List	Our Price
FISHER 1280X	$699.95	$539.95
J.W. FISHER PULSE 8	$850.00	$722.00
GARRETT XL500 PULSE	$799.95	$639.95
WHITES P-1000	$499.95	$399.95
MAGNETOMETER PROTON-1	$4,350	$3,880

(all other models available)

UNDERWATER CAMERAS, LIGHTS & CASES



CANNON, IKELITE, TEKNA, NIKON, AQUA-VIDEO, SONY and most other name brands — up to 25% OFF

UNDERWATER GOLD MINING EQUIPMENT

GOLD DREDGES — ALL BRANDS IN STOCK
up to 20% OFF list prices

FREE GIANT 1987 144-PAGE CATALOG

TO ORDER – FOR PRICE QUOTES OR CATALOGS – CALL TOLL FREE

(800) 535-2525 in USA or (800) 334-6677 in California

ALL MAJOR CREDIT CARDS ACCEPTED – COD's OK –

ALL OF OUR SALES PEOPLE ARE CERTIFIED DIVERS, COMMERCIAL DIVERS, OR INSTRUCTORS!

FREE SHIPPING ON ALL ORDERS OVER $300
(TANKS EXCLUDED)



Northwest Divers Supply

A Division of Northwest Equipment & Mining Supply

505 Summer Street • Eureka, CA 95501 USA • (707) 444-3805

NOTICE: Regulators and scuba tanks sold only to certified divers or students currently enrolled in a scuba class.

SUN. 9:30-6

PHONE ORDERS ACCEPTED DAY OR NIGHT
MON.-THURS. TILL 9:30 PM EDT FRI. 9-2.

ADORAMA

THE PHOTOGRAPHY PEOPLE

138 WEST 34TH STREET
NEW YORK, N.Y. 10001

212/564-4465

TOLL FREE OUT OF STATE
800-223-2500
HAWAII & ALASKA
800-232-7662



NIKONOS V UNDERWATER SYSTEM

FREE NIKON UW PHOTOGRAPHY TECHNIQUES W/PURCHASE OF NIKON OUTFIT

*Nikonos V	318.95
New! Action Touch	176.95
15/2.8	884.95
New! 20/2.8 UW	396.95
28/3.5 218. 28/2.8 LW	154.
35/2.5 UW 96. 80/4 UW	212.
28mm UW Finder	15.95
35 & 80mm UW Finder	16.95
DF-10 Finder f/80mm (Above Water)	64.95
DF-11 186.95 DF-12	114.95
**SB 102 w/case	619.95
**SB 103 w/case	299.95
TTL Sync Cord (Land)	59.95
PC Flash Adapt (Land)	23.95
Dbl TTL Sync	99.95
Dbl Bracket	114.95
Dbl Bracket Set f/SB102	229.95
Ext. Arm f/SB102,103	99.95
SU-101 Sensor	86.95
Sensor Holder	47.95
Close up kit w/o case	129.95
Support Arm f/Close Up	29.95
Macro Lens Set f/Nikonos	49.95
Lens Hood & Filter Holder	6.95
CC 30R Filter	17.95
Case f/Nikonos	19.95
O-Ring Set	6.95
Nikonos Handbook by Jim & Cathy Church	18.95
U.W. Cue Cards	13.95

*FREE EXT. TUBE OR U.W. CASE
**FREE DIVE LIGHT CALL

ACCS. F/NIKONOS

Sunpak Mariner 32	209.95
Toshiba F-III TTL	269.95
Ikelite Ext Tube Set	99.95



SEA & SEA NIKONOS ACCS

17/3.5 Lens w/cs	439.95
Viewfinder f/above	54.95
NEW 16/5.6 Conv Lens	179.95
24mm Lens Kit	159.95
YS-100 TTL	349.95
Ext Tubes 1, 2, 3, @	56.95

SUB SEA

#103 Mark 100 Strobe	309.95
#149 Mark 150 Strobe	434.95
For All Other Accs.	Please Call

UNDERWATER CAMERAS

Minolta Weathermatic-A	74.95
Canon AS6 Underwater	107.95



Canon AS6 w/Accs. Kit	127.95
New! Vivitar Trek 50	117.95
Fuji HDM Underwater	159.95
Olympus Infinity	144.95

HANIMEX

Hanimex Amphibian 110	83.95
Hanimex Amphib. 35mm	149.97
Ikelite Substrobe S Kit f/above Includes strobe, photobag, tray, strap & handle	Only 154.95
Amphib Flash (110 or 35)	97.95
Close-Up Lens Set f/35mm	27.95
Macro Lens f/35mm	43.95
Wide Angle Lens f/35mm	86.95



SEA&SEA

Motor Marine 35	169.95
Motor Marine 35 w/Bulk Head Conn	209.95
Wide Angle Lens (24mm)	149.95
Macro Lens	59.95
Close Up Lens	36.95
YS 20M Strobe	99.95
YS 50M Strobe	199.95
Sea Grip V Tray & Handle	71.95
Sea Arm II	88.95
Sea Arm III	84.95

UNDERWATER ACCS.

Sekonic L164B Meter	104.95
L158 w/Housing	49.95
L188 w/Housing	59.95
Eumig Nautica Underwater Super 8 Movie Camera	199.95
Sima Sports Pouch	19.95
Toshiba U.W. Flashlight	36.95

SUBATEC

STROBES

S-100	699.95
S-150	899.95
S-200 TTL	799.95
S-250 TTL	999.95

NIKONOS ACCS.

Subwinder WA Lens w/Fdr	240.
Optical Finder 35/28mm	139.95
Optical Finder 35/15mm	179.95

ikelite

underwater systems

DISC CASE PACKAGE

Disc Camera w/Housing, Water Corr. Lens & Sport Finder 99.95



Above w/Substrobe S & Travel Bag	209.95

CAMERA HOUSINGS

f/Kodak Disc Cameras	52.95
f/Most SLRs w/Sup. Eye	269.95
f/Most SLRs w/o Sup. Eye	229.95
f/Maxxum Cameras	Call
f/Nikon N2000/N2020	Call
f/Olympus OM-77AF	Call

VIDEO HOUSINGS

f/JVC/GR-C7U	544.95
f/Minolta 5000, 7000	Call
f/Olympus VVX-801	Call
f/Sony CCD-M8U	229.95
f/Sony CCD-M8U w/WA	379.95
f/Sony CCD-V3U	Call
UW Video WA Lens	184.95
UW Video Fisheye Lens	109.95
UW Video Lite	189.95
Other Video & CCD Housings	Call

FLASH UNIT & ACCS.

Substrobe S w/Arm	99.95
Substrobe M	99.95
Substrobe MS	113.95
Substrobe MV	129.95

Substrobe MV Photocase Package Includes: MV, Mini C Lite, Nikonos TTL Cord, Tray, Strap & Handle, Rapid Advance, Strobe Handle & Mount, Die Cut Foam Photocase All For Only 279.95

Substrobe 100	279.95
Substrobe 150 w/N.C.	399.95
Substrobe 150 D	324.95
Substrobe 225 w/N.C.	439.95

WATCHES & COMPASS

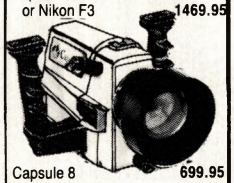
DDL-1000 Digital Timer	89.95
NEW DDL-2000 Blk	114.95
Pro Compass (Wrist)	22.95
Pro S Compass (Wrist)	31.95

DIVING LIGHTS

C Lite-1	34.95
C Lite-2 w/Nicad & Charger	92.95
Mini C Lite Halogen	21.95
Modular H Lite	46.95
Other Ikelite Accs.....	Call

Aqua Vision

Aquatica 3 f/Canon F1 New or Nikon F3 1469.95



Capsule 8	699.95
Capsule 8 w/Case	829.95
Sony HandyCam w/Capsule 8	1499.95

PELICAN Water Proof, Unbreakable

Guard Box	13.95
#1400	43.95
#1500	63.95
#1600	104.95
#1700	119.95

DIVE LIGHTS

Mity Light 8.95 Pelilite 16.95
Swatlite 34.95 Sabrelite 27.95

ewa-marine MASTER SERIES

U-F w/Winder	66.95
U-FXP Winder & Strobe	68.95
U-FX Zoom & Flash	83.95
U-FPN Zoom, Flash, Motor	76.95
U-FGM w/Tall Strobe	78.95
U-FZ Medium Zoom	77.95
U-FZL Long Zoom	81.95
U-AL f/Disc	27.95
U-AFM Autofocus	38.95
UND Super-8 Movie Cams	59.95
SL Sup-8 Bolex Movie Cam	59.95
U-H Med Fmt Cameras	87.95
Housing f/Camcorders	129.95
Housing f/Sony 8mm Handy	129.95

WATERPROOF BINOCULARS

NITROGEN SEALED & FOG PROOF

Nikon 7x50 IF	249.95
Nikon 8x30 IF	199.95

Kodak

SLIDE FILM	w/o proc.	w/Kodak proc.
KM (25) 135-36	4.35	7.49
KR (64) 135-36	4.35	7.39
KR (64) 135-24	3.15	5.60
EN (100) 135-24	3.45	5.89
EN (100) 135-36	4.25	7.50
ET (160) 135-36	5.99	9.24
ED (200) 135-24	3.95	6.40
ED (200) 135-36	4.90	8.15
EL (400) 135-24	4.69	7.14
EL (400) 135-36	5.35	8.60
EES(1600)135-36	7.59	—

PROFESSIONAL FILM

PKM (25) 135-36	5.09	8.35
KPA (40) 135-36	5.79	9.04

FUJICHROME SLIDE FILM

	w/o proc	with proc
RF (50) 135-36	3.84	6.25
RD (100) 135-36	3.54	6.25

MOST ORDERS SHIPPED WITHIN 48 HOURS

No surcharge for Master Charge or Visa purchases. Personal checks welcome, will ship without delay. Name must be imprinted on check, also include address, phone & a copy of major credit card or drivers license for reference. We are licensed by Consumer Affairs Dept - Lic. #800188. Shipping Charges: $5.95 + over 3 lbs. 50¢/lb. + over $750.00 2% of value, otherwise 3%. 14 day money back guarantee less shipping, with packing and blank warranty card, except film and paper. We ship UPS. Some items special order. All orders are subject to acceptance and verification. Products in this ad are supplied with Adorama's own exclusive warranty. Copies are available upon written request, may not include english instruction. Products are parallel imports which are not accompanied by manufacturer's warranty and not eligible for rebates offered by manufacturer unless mfg. or dist warranty included. Pictures are for illustration purposes only and may not be exact. Prices effective till Apr. 3, '87. N.Y. Residents add Sales Tax. ALL FREE GOODS MUST BE REQUESTED AT TIME OF PURCHASE

B&H PHOTO

"The Professional's Source"

UNDERWATER PHOTO EQUIP.

ikelite / ewa-marine

UNDERWATER SYSTEMS . . . CALL



NIKONOS V w/35 F2.5	$419.00
Original Nikonos Case	29.95
NEW! 15 2.8 w/DF-11 Finder	1,095.00
NEW! 20 2.8 399.00 28 2.8 LW	154.95
28 3.5 UW 219.00 80 4 UW	217.95
SB 102 Outfit w/case	619.00
SB 103 Outfit w/case	309.00
NIKONOS Close-Up Kit w/o case	134.95
Case for Close-Up Kit	29.95

DF-12 Optical Finder	$119.95

HANIMEX AMPHIBIAN SYSTEM

35mm Amphibian	154.95
Handle Flash for 110 or 35mm	104.95
Wide Angle Lens	89.95
Macro Lens . . . 44.95 Close-up	28.95
Fujica HD-M	159.95
NEW! Canon Aqua Snappy Kit	CALL
Sekonic L164B Meter	105.00
Pelican 1400 12x9x5	47.95
Pelican 1500 17x11x8	66.95
Pelican 1600 22x17x8	114.95
Pelican 1700 50x11x6	139.95

MAIL & PHONE ORDERS ACCEPTED. NY residents add sales tax. Fast delivery with certified check or money order. M.C. & VISA users give card no., bank no. & expiration date. Min. handling and shipping up to 3 lbs. $5.50; over 3 lbs. to 50 lbs. send 50¢ for each additional pound. Insurance: add 40¢ per $100. Not responsible for type errors. Prices are valid through April 25th.

Open Sun. 10-4 Mon.-Thurs. 9-6 Friday 9-2 Closed Sat. (212) 807-7474 To Order Call Toll Free: 800-221-5662 Canada Toll Free: 800-634-4009. Rush Service & Overnight Express Avail.

119 West 17th St.
New York, NY 10011

DIVERS ACADEMY

Eastern Seaboard, at 2500 Broadway, has been in the business of turning out qualified divers for more than 10 years.

QUALIFICATIONS

Commercial diving *is* underwater mechanics. Thus, prospective divers must have a high mechanical aptitude. They must also have adequate training, experience and skills in welding and cutting, essentials of construction carpentry (handling heavy timbers), be able to adapt all topside tools to underwater use and understand hydraulic and pneumatic power and tools. It is training in these skills, and in the use of relevant tools and equipment, that will allow the graduates to eventually accomplish difficult underwater tasks. Enhancing their aptitude and instilling new skills are the contributions made by the Divers Academy instructors and their practical training program. They, and the students, must teach and learn, rehearse and practice and develop skills until reactions to situations and to handling equipment are automatic, accurate and productive. Deep U/W is no place for fumbling or lack of confidence.

In an open letter to prospective students, director Bill Brown states, "At Divers Academy, we set high standards to achieve our educational objectives." Those are to train students in a realistic setting and to produce graduates ready for gainful employment in the commercial diving industry as tenders, tenders/divers or as divers. One of the ways the academy successfully reaches its goals is to train classes with limited enrollment—the average class size is ten students. This number can vary, however.

REQUIREMENTS

Admission requirements are fairly standard. Students must be 18 years of age prior to starting their training. Owing to the nature of modern diving, applicants must be high school graduates or have an equivalent educational background. The reason for this is obvious. Commercial divers must be able to work with written instructions, read and apply blueprint information, make calculations and be able to write intelligent reports of their findings and recommendations. They must also keep technical records.

The Divers Academy provides applicants with medical examination forms. These must be completed by the applicant's physician and submitted to the school for approval. Medical examinations must have been completed within the six months preceding enrollment. The academy requires applicants to be competent swimmers. Prior scuba experience is not required, although it is helpful. Classes convene on a monthly basis.

TUITION

Tuition for the commercial diving course is $3,850 plus a $25 application fee and $100 for registration. Total cost of the complete course is $3,975. There are no hidden costs for special classes. All books, supplies and equipment are provided by the school. However, each student must provide his/her own complete scuba accessories such as wetsuit, mask, flippers, weightbelt with weights and other minor items. This equipment will be needed by the third week of classes. The academy suggests $450 be budgeted for these items.

The Divers Academy offers several plans for payment of tuition. Also, the school has been approved for training veterans and is accepted for participation in most State Educational Assistance programs (Guaranteed Student Loans) and Pell Grants. Divers interested in the Divers Academy should write direct to the admissions director, Tamara Brown, for complete information.

THE COURSE

In commercial diving only part of the work is underwater. One of the objectives of the Divers Academy of the Eastern Seaboard is to turn out divers who can be a real value to their employers both underwater and topside at the job site on the dock or the deck of the diving vessel. Diving is very much a team effort with diver, dive crew and topside personnel working together to accomplish a challenging underwater task. The work projects at the academy are designed to not only train dive teams in new skills but to test their abilities, resourcefulness and capabilities for practical team achievement. Every student will learn the limits of his/her diving and work capabilities.

The course is 640 hours long, consisting of 192 hours of classroom work in preparation for 448 hours of actual experience. Students attend classes eight hours per day for 16, five-day weeks.

Most employers in the commercial diving industry require all divers and tenders to be qualified in first aid and CPR. A major contribution to a Divers Academy graduate's employment potential is the 64 hours of training in diving medicine, first aid and CPR given to all students by Chuck Wagner, an Emergency Medical Technician instructor and Jim Crane, safety engineer and first aid instructor.

CUTTING AND WELDING

An intensive 80 hours of instruction and practical application of techniques in underwater welding and cutting provide the student with important skills. During this phase of the course students will learn to use the latest cutting equipment and techniques, the practical application of the Oxy/Mapp gas torch cutting equipment and conventional arc/oxygen cutting equipment. In addition, metallic arc cutting and wet stick welding are taught.

(Continued on Page 164)

4 REASONS WHY YOU MUST CALL CENTRAL BEFORE YOU PLACE YOUR DISCOUNT MAIL ORDER

1 - CENTRAL SKINDIVERS is a full time, full line pro shop with an olympic size indoor pool. For over 35 years we have taught **SCUBA**, tested new products and helped design many items used today. We know every diving item made, anyplace!!!

2 - CENTRAL shops the entire world just for you. We carefully check every diving item and always have the newest and the best at the lowest prices. **CENTRAL** has thousands of other items not shown in this ad. Our giant discounts get you the best values for your money.

OPEN 7 DAYS MON. TO FRI. 10-9, SAT. 10-7, SUN. 10-5

PHONE (516) 826-8888

3 - CENTRAL guarantees you the lowest prices on individual items or package deals. We sell only brand names. You get both **CENTRAL'S** and the manufacturer's guarantee. Not only the lowest prices, but service too!!! We custom suits, repair anything, fill, etc., etc.

4 - CENTRAL is open 7 days a week. Orders placed with charge cards or money orders are shipped within hours. All shipping and insurance (except tanks) is paid by **CENTRAL** in Continental U.S.A. WE CANNOT BE UNDERSOLD! If you see something advertised for less, let us know and we'll beat the price. Call 516-826-8888 now!!!

STABILIZING JACKETS
Famous Makes, Best Quality,
Low Pressure Inflator & Hose,
Quick Dump, "Travel" Kam Pack
PRO A.D.J. STYLE (S, M, L or XL) $179
ORIGINAL MANTA (S, M, L or XL) $239
SEAJACKET VI (M,L OR XL) $229
DELUXE B.C. JACKET (M or L) $129
Central pays shipping
B.C.'s AND STAB JACKETS FROM SHERWOOD, US DIVERS, DACOR, SEAQUEST, SEATEC, PARKWAY, TABATA, ETC. ALWAYS ON SALE



REGULATORS
SUPER DELUXE (List $280) $179
DELUXE BALANCED PISTON (List $240) $149
FLOATING SEAT PISTON (List $198) $139
BALANCED PISTON (List $180) $99
OCTOPUS (LONG HOSE) (List $90) $45
Central pays shipping
REGULATORS FROM US DIVERS, DACOR SHERWOOD, SEAQUEST, TEKNA, TABATA, ETC. ALWAYS ON SALE



"HORSECOLLAR" CLOSEOUT
FENZY & NEMROD B.C.'S WITH PUSH BUTTON RESERVE AIR TANKS. VALUES TO $425. **$150**

DELUXE PACKAGE DEAL WITH OCTOPUS
REGULATOR, PRESSURE & DEPTH CONSOLE
STABILIZING B.C. JACKET & OCTOPUS **$300**
WE BEAT ANY PACKAGE DEAL & PAY SHIPPING



THERMO-PLASTIC FIN
Jet Type Blade
Vented Clear/Black Plastic
Adjustable Straps
CLEAR STRAP FIN (M or L) $33
GRAPHITE STRAP FIN (M or L) $38
TRI-VUE SILICONE MASK $29
SILICONE VENT SNORKEL $12
NYLON 2-HARD SOLE BOOTS $22
Central pays shipping

TANK SPECIALS
Top Name Brand
Deluxe Valve
Your Color Choice
ALUMINUM 80 CU. FT. K $109
ALUMINUM 100 CU. FT. K $159
Plus Shipping
DELUXE TANK BOOT $7
ALL OTHER TANKS INCLUDING PONYS FROM US DIVERS, DACOR AND SHERWOOD ALWAYS ON SALE



All prices are for mail order only
Store prices may vary.



WATCHES
CITIZEN AQUALAND ON SALE
CHRONOSPORT AUTOMATIC DATE $139
HEUER QUARTZ DATE $179
CHRONOSPORT GOLD QUARTZ $350
HEUER BLACK CORAL II $299
CHRONOSPORT U.D.T. STRAP $329
Central pays shipping
ALL OTHER WATCHES ALWAYS ON SALE



DELUXE CONSOLES
PRESSURE/DEPTH COMBO $59
PRESSURE/MAX DEPTH/COMBO $69
PRESSURE/DEPTH/COMPASS TRIPLE $79
PRESSURE GAUGE W/HOSE $42
OIL FILLED DEPTH GAUGE $39
FAMOUS MAKE CONSOLE W/PRESSURE GAUGE, MAX DEPTH, COMPASS & DIGITAL BOTTOM TIMER $169
Central pays shipping
PRESSURE AND DEPTH GAUGES FROM US DIVERS, DACOR, OCEANIC AND TEKNA ALWAYS ON SALE

FAMOUS JACKET & PANTS NYLON 2 SIDES
¼" HI WAIST SUPERSTRETCH $109
¼" FARMER SUPERSTRETCH $129
¼" FARMER SUPERPLUSH U.S.A. $149
CLEARING OUT XS, S, M ¼" SUITS $ 50
⅛" DELUXE SHORTY $ 69
Central pays shipping
OTHER WET OR DRY SUITS AND SHORTIES FROM VIKING, PARKWAY, US DIVERS, HENDERSON, HARVEY, ETC. ALWAYS ON SALE



CENTRAL CANNOT & WILL NOT BE UNDERSOLD! BILL, RICH, DAN & ARCHIE ABSOLUTELY GUARANTEE IT!

BOTTOM TIMER
Luminous
Lifetime Warranty
Altitude Adjustable
BOTTOM TIMER $52
Central pays shipping
BOTTOM TIMERS AND WATCHES FROM TEKNA, SEIKO, CHRONOSPORT, HEUER, CASIO AND IKELITE ALWAYS ON SALE



Central Skindivers
2608 Merrick Road, Bellmore, NY 11710
*** (516) 826-8888 • Open 7 days**
160-09 Jamaica Ave., Jamaica, NY 11432
Open 6 days
Minutes from Manhattan and Kennedy Airport
Central is a PADI Facility
Lessons For Beginner Through Instructor.

Use and operation of life support equipment should not be undertaken without qualified and proper instructions in their use. This ad does not imply the sale of life support equipment through the mail.

CENTRAL SKINDIVERS
2608 Merrick Road, Bellmore, NY 11710
Phone: (516) 826-8888
Minimum Mail Order $50
Minimum **VISA, MASTERCARD,** or **DISCOVER CARD** $75
Minimum **AMEX** or **PADICARD** $100

Name _____
Address _____
City _____ Apt ____
State _____ Zip ____
Phone ( ) _____
Please rush attached order! Sorry NO C O D
$ _____ enclosed (N Y add tax) or bill my charge card
_____ Exp Date _____
☐ **VISA** ☐ **AMEX** ☐ **MASTERCARD** ☐ **PADICARD**
☐ **DISCOVER CARD**
Signature _____

SKIN DIVER ADVERTISER INDEX & READER SERVICE PROGRAM

Readers wishing additional information from participating advertisers are urged to use the convenient accompanying card. To receive free materials, locate the advertiser on the list below. The number to the left is the reader service number. Simply circle this same number on the card and mail. Advertisers not participating in the reader service program are indicated by a star (★).

READER SERVICE NUMBER	ADVERTISER	PAGE NUMBER
215	ACHILLES	41
305	ADORAMA	160
284	AKIMBO INC.	71
153	ALM AIRLINES	79
197	ALOHA DIVE SHOP	60
282	AMERICAN DIVING H.Q.	154
102	ANDROS UNDERSEA	78
269	ANSE CHASTANET	135
110	ANTHONY'S KEY	104
185	AQUACRAFT INC.	39
123	AQUANAUT WATERSPORTS	151
328	AQUA VIDEO	72
313	B & H PHOTO	160
250	BAHAMAS TOURISM	75
163	BAJA EXPEDITIONS	148
124	BARBACHANO TRAVEL	120
★	BARBADOS TOURISM	76
111	BAYMAN BAY CLUB	116
216	BERRY SCUBA	163
252	BEUCHAT-U.S.A.	20
101	BIMINI UNDERSEA	78
142	BLACKBEARD'S CRUISES	148
268	BLACK BART'S	156
193	BLUE CHIP CHARTERS	62
323	BLUE WATER DIVERS	95
118	BONAIRE BEACH HOTEL	79
231	BOTTOM TIME	137
226	BRAC REEF BCH. RST.	130
164	BROWNIE'S 3RD LUNG	150
229	BUCCANEER'S INN	136
235	BYE-COASTAL TOURS	95
★	CME VIDEO	68
119	CSA/BUCCANEER HTL	134
★	CAMP NAUTILUS	157
279	CAP'N DON'S HABITAT	151
240	CAPT. SLATE'S ATLANTIS	128
227	CARIB INN	147
★	CAYMAN AGGRESSOR	93
★	CAYMAN DIVING LODGE	154
108	CAYMAN ISLANDER HTL	77
★	CENTRAL SKIN DIVERS	161
122	CENTRAL PACIFIC DIVERS	61
103	CHUB CAY UNDERSEA	78
★	CHURCH, JIM & CATHY	157
259	CITIZEN WATCH COMPANY	C3
157	COASTAL SCHOOL	72
125	COCO VIEW RESORT	152
★	COCO VIEW RESORT	157
★	COLLEGE/OCEANEERING	22
138	COLONNADES BCH. HTL.	147
324	COLUMBUS HOUSE	95
170	COMM'L DIVING INST.	166
232	CONTINENTAL AIRLINES	88
234	CONT'L/TWO WORLDS	113
105	CONTINENTAL AIR/FIJI	86-87
★	CRESSI-SUB	70
★	CURACAO TOURIST BOARD	84
261	DACOR CORPORATION	8-9
★	DALTON, M.L., RESEARCH	28
213	DARRELL ALLAN PRODUCTS	68
191	DESTINATION HAWAII	53
189	DESTINATION HAWAII	55
219	DIVE ABACO	156
165	DIVE B.V.I.	148
310	DIVE HOLIDAYS INT'L	124
★	DIVER PINS	166
★	DIVERS ACADEMY	71
126	DIVER'S DEN SOUTH	143
109	DIVER'S INST. TECH.	37
242	DIVER'S SUPPLY/MACON	165
297	DIVERS' TRAVELGUIDE	126
298	DIVERS' TRAVELGUIDE	127
239	DIVERS UNLIMITED	124
291	DIVE SHOP, THE	118
203	DIVE SHOP, THE	61
172	DREAM TEAM INC.	151
200	ELITE DIVES HAWAII	59
286	EL PLACER DEL CARIBE	113
320	EREBUS HOTEL	95
155	FATHOM FIVE	57
162	FISHERS, J.W.	71
149	FISHER RESEARCH LAB	72
293	FLAMINGO BEACH HTL.	101
304	FLAMINGO BEACH HTL.	155
★	FLA. DEPT. TOURISM	97
307	FLYING FISH, THE	151
278	FONATUR	81
223	FOSTER'S, DON	96
★	FOX PHOTO	65
236	GALAPAGO INN	154
144	GO DIVING	148
202	GOLD COAST DIVERS	66
327	GRAND PAVILION HOTEL	102
300	HARVEY'S	28
272	HAWK'S CAY	153
★	HELIX LTD.	158
296	HOLIDAY INN G. CAYMAN	112
173	HOME & AFIELD INC.	70
224	HOSPITALITY WORLD	102
★	HYCO SUBMERSIBLES	119
134	HYPERTECH INC.	149
★	IKELITE	31
316	IMAGES D'AVANT GARDE	148
156	INN AT THE WHARF	128
★	INNOVATIVE DESIGNS	92
238	INT'L SCUBA VENTURES	166
321	ISLAND PRINCESS	95
★	ISLAND PROPERTIES RPT	135
159	JACK'S DIVING LOCKER	66
128	KEENE ENGINEERING	41
253	KIDDE, WALTER, CO.	34
271	KONA COAST SKIN DIVER	67
113	LA CEIBA BEACH HTL	125
160	LA CEIBA HOTEL	153
190	LAHAINA DIVERS INC.	63
139	LA STREGA	141
167	MAGGIORE, LEONARD	70
★	MARINA DEL MAR	117
★	MARINE PACIFIC LTD.	50
145	MARINER SUITS/ABEC CORP.	69
174	McCOY'S, SAM (J-Mar)	148
306	MOORINGS, THE	155
209	NAUI DIVING ASSOC.	47
114	NAUI PROF. DIVE CTR.	36
235	NEPTUNO DIVERS	150
147	NEW PROVIDENCE DIVERS	150
116	NICK'S AQUA SPORTS	118
257	NIKON INC.	25
258	NIKON INC.	27
211	NIKON INC.	29
★	NISSAN	33
207	NORTHWEST EQUIPMENT	159
196	OCEAN ACTIVITIES CTR.	65
201	OCEAN ADVENTURES	59
247	OCEAN CORP.	15
243	OCEANIC U.S.A.	C2
★	OCEAN QUEST INT'L	85
129	OCEAN RAY	164
187	OCEAN TECH. SYSTEMS	47
143	OLMEVA OF AMERICA	69
218	OMEGA DIVING	149
319	OMEGA DIVING	95
322	OMEGA DIVING	95
★	ON THE RUN	164
312	ORCA IND.	35
184	PADI	21
115	PADI INT'L COLLEGE	38
302	P.D.I.C.	156
117	PARKWAY FABRICATORS	39
280	PIONEER	157
241	PISCES DIVERS	154
273	POSADA DEL SOL	136
186	POSEIDON VENTURES	121
130	PYRAMID ISLAND	108
264	RSL	92
195	REAL HAWAII	54
121	RIDING ROCK INN	126
260	ROLEX WATCH USA	11
301	ROYAL ISLANDER CLUB	58
309	SMY INT'L	13
292	SAND DOLLAR BCH. CLUB	155
194	SCUBA SCHLS OF MAUI	60
146	SCUBA WORLD	167
317	SCUBA WORLD	94
294	SEA DANCER LIVE-ABOARD	103
107	SEA DWELLERS DIVE CTR.	111
★	SEA FANS VIDEO MAG.	23
290	SEA FEVER DIVING	112
154	SEA HUNT INC.	70
131	SEA PARADISE	66
262	SEA PEARLS	137
★	SEAQUEST	4-5
198	SEA SAGE	56
★	SEA SCHOOL	152
303	SEA SERVICE & SUPPLY	68
161	SEASPACE/HUC	72
132	SEASPORTS DIVE CENTER	149
150	SEA VENTURES TOURS	134
133	SEAWARD HOLIDAY	110
★	SEE & SEA TRAVEL	109
★	SEE & SEA TRAVEL	157
248	SHERWOOD SCUBA	16
249	SHERWOOD SCUBA	19
140	SKIN DIVER WET SUITS	166
288	SOMERSET BRIDGE	155
225	SOTO'S, BOB, DIVING	127
267	SPORT EUROPA	156
281	SPORT EUROPA	167
289	STELLA MARIS INN	141
★	STRAIGHT, ROBERT L.	119
177	STUDIO GALLERY	166
254	SUBMERSIBLE SYSTEMS	68
265	SUNSET HOUSE	100
276	SURFSIDE WATERSPORTS	129
277	SURFSIDE WATERSPORTS	131
★	TLC COMPANY	156
245	TABATA U.S.A.	C4
251	TAG-HEUER	3
★	TANNER, CHESTER	157
295	TIARA BEACH HOTEL	105
266	TREASURE ISLAND HTL	108
228	TREASURE ISLAND HTL	110
★	TRIMARINE BOAT CO.	153
244	TRIP & TOUR	92
214	TRI-STATE CAMERA	167
270	TROPIC BIRD	152
318	TURKS & CAICOS	94
135	TWO WORLDS/BAHIA	143
151	UDT INC.	69
284	UNEXSO	89
263	U.S. TECH	145
★	V.I. SCUBA/SAIL	150
205	VEHON VENTURES	58
★	VIRGIN IL SAILING	157
136	WALKER'S CAY HOTEL	120
★	WATERSPOT	71
204	WATERSPORTS INC.	61
★	WENOKA	6
137	WEST END DIVING	142
152	WHITE'S ELECTRONICS	70
192	WINDWARD/AARONS	57

April Super Sale ★ Fantastic Savings

April 25 and 25, Chicago location ➡ Save up to 60% off retail on wet suits, and up to 50% off retail on accessories, regulators, BCD's, snorkeling gear, and other selected equipment. **This is the sale event of the season!**

Our World Underwater diver's convention ★ April 24 to 26, O'Hare Hyatt ★ Seminars, movies, and showroom. Meet other diving enthusiasts! Visit the **Berry Scuba booth** and take advantage of our **sale specials** while at the show! **Free shuttle** on Saturday between the show and our Chicago facility.

CHICAGO AND ATLANTA STORES ONLY MINUTES FROM AIRPORT AND EXPRESSWAYS



Package 1
U.S.TECH B-29 II jacket BCD with power, soft band pack, rapid exhaust, cummerbund; Vanguard Sport regulator with high performance first stage, limited lifetime warranty; Tekna PSI/Max depth double console; Waterlung octopus with 36" hose.
Retail $765.00
Sale $512.50



Package 2
U.S.TECH ABC-II Advanced Buoyancy Compensator with power, soft band pack, rapid exhaust, cummerbund; Tekna regulator with ultra light servo second stage; U.S.TECH PSI/Max depth double console with thermometer and limited lifetime warranty; U.S.TECH Sport Octopus with 36" hose and limited lifetime warranty. Retail $905.00
Sale $554.50



Package 3
U.S.TECH Shadow jacket BCD, all black, with power, soft band pack; U.S.TECH Explorer balanced regulator with limited lifetime warranty; U.S.TECH PSI/Depth double console with limited lifetime warranty; Waterlung Octopus with 36" hose.
Retail $760.00
Sale $444.50



Package 4
U.S.TECH B-29 II jacket BCD with power, soft band pack, rapid exhaust, cummerbund; Waterlung X-3 regulator; U.S.TECH Pressure gauge with limited lifetime warranty; U.S.TECH Sport Octopus. Retail $644.00
Sale $394.50



80, 65, 50 Cubic Foot Aluminum Tank only $59.95
Includes K Valve
With any of these eight SCUBA packages! Limit one tank per package.



Package 5
Parkway Ocean Jacket II Advanced BCD with rapid exhaust, power inflator, soft band pack, cummerbund; U.S.TECH Vanguard Professional regulator with SCUBA Guard padded case and limited lifetime warranty (Featured in Jan. '87 Skin Diver); Tekna PSI/Max depth double console with knife; U.S.TECH Sport Octopus with 36" hose and limited lifetime warranty.
Retail $905.00
Sale $613.50



Package 6
U.S.TECH Shadow jacket BCD, all black, with power, soft band pack; U.S.TECH Vanguard Professional regulator with SCUBA Guard padded case and limited lifetime warranty (Featured in Jan. '87 Skin Diver); U.S.TECH PSI/Depth Double console with limited lifetime warranty; U.S.TECH Sport Octopus with limited lifetime warranty.
Retail $855.00
Sale $509.50



Package 7
U.S.TECH ABC-II Advanced Buoyancy Compensator with power, soft band pack, rapid exhaust, cummerbund; U.S.TECH Vanguard Professional Silicone regulator with SCUBA Guard equipment case and limited lifetime warranty; Tekna PSI/Max depth double console with knife; U.S.TECH Sport Octopus with limited lifetime warranty.
Retail $925.00
Sale $603.50



Package 8
U.S.TECH B-29 II jacket BCD with power, soft band pack, rapid exhaust, cummerbund; U.S.TECH Ranger regulator with limited lifetime warranty; U.S.TECH Pressure Gauge with thermometer and limited lifetime warranty; Waterlung Octopus with 36" hose. Retail $657.00
Sale $414.50

Berry Scuba Co.	**Berry Scuba Company**	**Berry Scuba Company**	**Berry Atlanta**
6674 N. Northwest Hwy.	#26A Yorktown Mall	1717 Rand Road	3443 Stewart Ave.
Chicago, IL 60631	Lombard, IL 60148	Palatine, IL 60067	Hapeville, GA 30354
(312) 763-1626	(312) 495-2822	(312) 358-3848	(404) 766-1186

In Store Only - Sherwood Packages - All Locations



Supreme Package
This package has all of the best equipment - The Freedom advanced BCD with power, pack, rapid exhaust, cummerbund, pockets and more ★ The unique Oasis regulator that keeps your air moist ★ Low-profile Shadow octopus that hooks to your power inflator ★ Double console with pressure, max. depth gauge, and thermometer ★ Tank boot, and your choice of an 80, 65, or 50 cubic foot tank with K valve ★ Color coordinated.
Retail over $1350.00
Sale $769.95



Deluxe Package
What you need at a great price - Sherwood's Freedom E advanced BCD with power inflator, rapid exhaust, pocket, and more ★ Brut regulator ★ Octopus with 36" hose ★ Pressure gauge ★ Tank boot, and your choice of an 80, 65, or 50 cubic foot tank with K valve ★ Color coordinated.
Retail over $900.00
Sale $529.95



Freedom II Package
This is one quality package - We start with the Freedom advanced BCD with power, pack, rapid exhaust, cummerbund, pockets and more ★ Magnum II fully balanced regulator ★ Octopus with 36" hose ★ Double console with PSI and depth ★ Tank boot, and your choice of an 80, 65, or 50 cubic foot tank with K valve ★ Color coordinated.
Retail over $1250.00
Sale $669.95

Rotary dive calculator	$2.00
Hose protector	2.50
Wet suit shampoo	5.95
4 X 5 Slate with pencil	4.95
Nikonos V w/35mm lens, warranty	424.95
Underwater Video book	14.95

Help Wanted
Instructors
Sales People
◇ Full & Part Time
Call (312) 763-1626
Ask for Tom

12 lb weight belt set	$19.95
Octopus with 36" hose	44.95
U.S.DIVERS knife with sheath, 5" blade	19.95
Snorkel with blue bore and silicone mouthpiece	9.95
Mask box, fits most masks	4.95
Tire inflator - attaches to BCD power inf. hose	8.50

How to order: By mail - Send a certified check, cashiers check, money order, or a charge card number and expiration date (we accept Visa, Master Card, American Express, PADIcard, and Discover Card) to *Berry Scuba Co., 6674 Northwest Hwy., Chicago, IL 60631.* **By phone:** Outside Illinois call *(800) 621-6019* - This is our computer order line, and is always open. You will need to know prices, description, and size. Have your charge card and order ready. This line is for orders and catalog requests only. If you require information, next day shipment, or have questions, call our order *Hot Line ★ (312) 763-1626 ★*. This is not an offer to sell mail order. **Scuba diving requires special training. Scuba equipment should not be used by non-certified, untrained persons.**

Send for your free copy of our giant sale catalog!

Ocean Ray
289-G Suburban Avenue
Deer Park, New York 11729

WET SUITS
WRITE FOR FREE COLOR BROCHURE

FARMER JOHN DELUXE ¼" N-2
SPINE PAD
EDGE TRIM
VELCRO BEAVER TAIL
KNEE PADS
$159.95

ORDER DIRECT
from Manufacturer
VISA SAVE $ MasterCard
CALL TOLL FREE
800-645-5554
New York Residents
Call 516-667-7249
N-2 ¼" F.J. Regular $134.95
N-2 ⅛" shorty.....$70.00
¼" N-2 HOOD-BOOTS-MITTS
and ⅛" N-2 GLOVES ea. $21.95
Ocean Ray WET SUITS are fully guaranteed for quality and fit. We offer a wide range of sizes. Alterations are also available.
• All Suits Navy & Royal Blue
• All Merchandise is New Superflex Material
SAME DAY SHIPMENT
SATISFACTION GUARANTEED
Hours M-F 8am-6:30pm
Sat. 9am-3pm E.S.T.
SHIPPING BY UPS:
Suits $5.00 ea., Accessories $2.50 ea.
Accessories w/suit $1.00 ea.

NEW
FARMER JOHN STEP-IN ¼" N-2
SPINE PAD
MEN'S BOXER CUT
LADIES FRENCH CUT
KNEE PADS
EDGE TRIM
$174.95

DRY SUIT ¼" N-2
DRY VALVES WITH HOSE
KNEE PADS
$399.95

¼" FARMER JOHN STEP-IN with piping Men's and Ladies
KNEE PADS
$139.95

DISCOUNT CHRONOS
and hi-tech items
1 YEAR WARRANTY — 30 DAY TRIAL
ON THE RUN guarantees the lowest prices, largest selection, fastest service, 1-year warranty on all watch modules and a 30-day trial. We're North America's largest sportswatch dealer and we'll meet all prices in this magazine!
We give you our full address and our own toll-free order center (not just an answering service).

—FOR FASTEST ACTION—
CARD HOLDERS ORDER TOLL-FREE
800-437-4385
Credit card holders may use toll-free number above or send check or money order plus $3.00 for each watch. Add an additional $2.00 for U.P.S. air delivery. North Dakota residents add 4% tax.
On The Run
107 Roberts St., Dept. SK-4
P.O. Box 67, Fargo, ND 58107
Telephone (701) 232-9400
Write for a free one-year subscription to our catalog of timepieces and hi-tech items for better living.

CASIO AQ-100WG
330 FT
FEATURING—
• 330 ft. waterproof
• 1/10 stopwatch
• Daily/hourly alarms
• Luminous hands/dial
• Dive time bezel
• Digital display
• 12/24 time
• Dual time
• Calendar
• Long life battery
$44.95

NEW CITIZEN AQUALAND ELECTRONIC DEPTH METER CHRONO
660 FT
FEATURING—
• Super-accurate depth gauge from 1 meter to 80 meters
• Waterproof to 660 feet
• Depth alarm, depth recording, dive time recording
• Audible dive time alarms
• Digital stopwatch
• Luminous hands/dial
• One-way bezel, safety locks
• Calendar, depleted battery warning signal
ALSO AVAILABLE
Two-tone Aqualand $279.95
$229.95

MEN'S 200M DIVER
660 FT
FEATURING—
• 660 ft. waterproof
• Swiss ESA movement
• One-way bezel
• Screw-lock crown
• Luminous hands/dial
• Stainless case, calendar
• Quality equal to Heuer and Seiko
$49.95

CASIO NAUTILUS
660 FT
FEATURING—
• Depth-gauge to 300 feet
• Waterproof to 660 feet
• Professional stopwatch
• Countdown dive-time alarm
• 12/24 hour time, 3 alarms
• Electronic calendar, AM/PM
• 12-digit LCD display
• Night light, long life battery
$49.95

PRO 1000M DIVER
3,300 FT
FEATURING—
• 3,300 ft. waterproof
• One way ratcheted bezel
• Screw down crown
• Luminous hands/dial
• Stainless case/resin band
• Super quartz accuracy
• 3 yr. battery
$89.95

LADIES' 200M DIVER
660 FT
FEATURING—
• 660 ft. waterproof, ¾ size
• Swiss ESA movement
• One-way bezel
• Screw-lock crown
• Luminous hands/dial
• Stainless case, calendar
• Quality equal to Heuer and Seiko
$49.95

LORUS LADIES ER011
330 FT
FEATURING—
• 330 ft. waterproof
• Long-life battery
• 1/100 stopwatch, calendar
• 12/24 hour time
• Daily/hourly alarms
• Manufactured by K. Hattori (makers of Seiko and Pulsar)
• Stainless case and band
$29.95

TIMEX IRONMAN
330 FT
FEATURING—
• 330 ft. waterproof
• 1/100 sec. stopwatch
• 8-lap multisplit memory
• 3 mode countdown timer
• Daily/hourly alarms
• Night light, calendar
• Long-life battery
$34.95

CASIO DW-5400C
660 FT
FEATURING—
• 660 ft. waterproof
• 33-foot shock-proof
• 7-year battery, 3 alarms
• 1/100 stopwatch
• 12/24 time, 12-digit LCD
• Countdown timer
• Night light, calendar
• ¾ oz. case/band
$49.95

CASIO TOUGHWATCH II
330 FT
FEATURING—
• 330 ft. waterproof
• Withstands high/low temps.
• 5-year battery, 3 alarms
• 1/100 stopwatch
• 12/24 time, 12-digit LCD
• Countdown timer
• Night light, calendar
• ¾ oz. case/band
$29.95

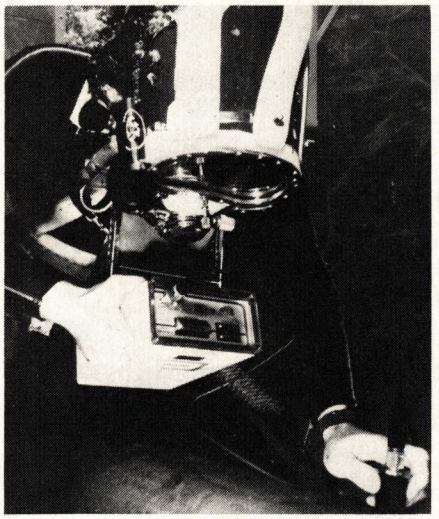
CASIO TS1200
330 FT
FEATURING—
• 330 ft. waterproof
• Reads temp. in F° or C°
• 1/100 sec. stopwatch with repeat every hour
• Temp/daily/hourly alarms
• Calendar, 12/24 hour time
• 8 time zones, night light
• ¾ oz. case/band
$34.95

DIVERS ACADEMY

(Continued from Page 161)

EQUIPMENT/TECHNIQUES

The first job most new divers encounter as they break out into commercial diving will almost certainly be setting up the dive station, tending and dressing in divers. Almost as surely, their actions, proficiency and attention to safety details will be closely watched. How they conduct themselves on their very first efforts as commercial divers will be the images by which employer, topside workers and other divers will judge neophytes, perhaps forever.



A Divers Academy student uses a Budd-gauge to determine metal thickness.

At the Divers Academy of the Eastern Seaboard, classes are designed to lead students into practical diving exercises to permit the best possible showing on this first day on the job. So there will be no surprises, students are introduced and eventually dive with all the types of diving helmets and masks standard on most jobs: the U.S. Navy Mk V helmet and its related dress and fittings; advanced commercial and mixed gas systems; Desco, Kirby-Morgan and Aquadyne masks. Full dry and wetsuits, hotwater heating systems and scuba become familiar ways to dress to accomplish an underwater job. Various communications systems are also used.

Working as a team, students learn to plan and supervise a site and the dive itself. Records are kept and tools and equipment are designated for specific jobs. Then, for 22 days, the class puts it all together on the bottom of the Delaware. A series of assigned tasks tests the skills of each as techniques, tools and equipment are used on jobs that are progressively more difficult and complex.

SHIP SALVAGE/SEAMANSHIP

In today's diverse use of commercial diving the subjects of ship salvage and seamanship are seldom covered thoroughly. They are at the academy. Classroom work detailing types of salvage, the use of machinery such as pumps, air compressors and several types of patches for repairing damage to a vessel precedes actual underwater practice.

Rigging, and closely related marlinspike seamanship, are important subjects for the salvage diver. Forty hours of classroom instruction, followed by both topside and underwater competitive drills in all phases of these essential skills, add greatly to the graduates' abilities to overcome many of the challenges encountered when working underwater.

ACADEMY LOCATION

Everything about the Divers Academy of the Eastern Seaboard looks, and makes students feel, like diving. The realistic setting for the school, on and alongside a pier in the bustling port of Philadelphia, reflects the environment of divers. Ships moored at adjacent piers loom large and overshadow the two story brick building that houses offices and classrooms. A short distance away the Walt Whitman bridge spans the Delaware.

The visual impact of the excellent facilities for training at the Divers Academy is equally as stimulating for students. On the pier are two double lock recompression chambers used for pressure tests and training. Marine construction equipment also has a place on the piers near the water. Moored in a slip adjacent to the administration building is the diving barge. It has nine dive stations capable of being used to train students in any of the many kinds of equipment used. A recently added 50 foot diving/work vessel is usually moored a few hundred meters offshore. Students make deeper dives, some to a depth of about 200 feet, from three stations on this vessel. It is equipped with a hydraulic crane system very similar to devices popular in many marine industries. Students learn the value of such equipment and the operational procedures applicable.

Airy, brightly lighted classrooms encourage study and attention to the lectures. Everything about the academy is indicative of the high standards director Brown insists on.

If you want to enter a profession that offers adventure, challenges, a chance to travel and diversity of work projects, you should consider a career in commercial diving. If you do, the Divers Academy of the Eastern Seaboard could be an excellent place for you to start.

For more information write the academy at 2500 South Broadway, Camden, NJ 08104; telephone (609) 966-1871 or, toll free, (800) 238-DIVE.

NEVER UNDERSOLD

Divers Supply

WE SELL ALL MAJOR BRANDS FOR MINOR PRICES

SUPER DEAL I



•DOLPHIN JACKET
Complete W/Soft Tank Band & Automatic Inflator
•BEUCHATE CONSOLE
Two Gauge Console W/Maximum Depth Indicator Colors: Blue, Yellow, Black
•SEA ELITE BALANCED REGULATOR
Rugged, Dependable 6 High Performance Life Time Warranty

Only $295.00
•Add $12.50 For Cummerbund
•We Pay Shipping & Insurance

SUPER DEAL II



•ADVENTURE JACKET
Sea Elite Advanced Design Complete W/Auto Inflator
•BEUCHAT CONSOLE
2 Gauge, W/Max Depth Indicator Colors: Blue, Yellow, Black
•SEA ELITE BALANCED REGULATOR AND SEA ELITE OCTOPUS REGULATOR
Rugged, Dependable & High Performance Life Time Warranty
•OPEN WATER GEAR BAG
Large Enough For All Your Dive Equipment
•TANK 80 CUBIC FOOT
Aluminum Tank W/KValve

Only $474.95
•Add $12.50 For B.C. Cummerbund
•We Pay Shipping & Insurance

SUPER DEAL III

•PARKWAY OCEAN JACKET II
Advanced BCD W/Rapid Exhaust, Power Inflator, Soft Band, Cummerbund
•BEUCHAT VOYAGER REGULATOR
Balanced, High Preformance, 2 High Pressure Point, 4 Low Pressure Point Life Time Warranty
•BEUCHAT VOYAGER OCTOPUS
Regulator with 36 Inch Hose Life Time Warranty
•BEUCHAT CONSOLE
2 Gauge, W/Max Depth Indicators Color: Blue, Yellow, Black
•OPEN WATER GEAR BAG
Large Enough For All Your Dive Equipment





Only $539.95
Tank With This Package Add $39.95
80 Cubic Foot Aluminum Tank W/K Valve. Limited One Tank Per Package
•We Pay Shipping & Insurance

SUPER DEAL IV

•TEKNA T-2100 BX REGULATOR
Featuring: Fully Environmentalized 2d Stage, Total Balanced 1st Stage W/2 High Pressure Ports & 4 Low Pressure Ports, Life Time Warranty
•TEKNA T-2870 CONSOLE
This Remarkable Console Has It All: Pressure Gauge, Depth Gauge With Max Depth Indicator, Altitude Compensator, Cobalt Compass, Automatic Digital Dive Timer & Knife.
•SEA ELITE OCTOPUS REGULATOR
36 Inch Hose "The Safe Second" Life Time Warranty
•MARK V JACKET BY SEA ELITE
The Ultimate In Buoyancy Control
87" model advanced design. Complete w/ auto inflator. R.E valve, light & knife. Pockets & cummberbund.



Only $639.95

TANK With This Package $39.95
80 Cubic Foot Aluminum Tank W/K Valve
Limited One Tank For Package
•We Pay Shipping & Insurance

ALUMINUM TANK 80 CUBIC FOOT FAMOUS BRAND



With each $400.00 purchase made at Divers Supply you qualify to purchase one aluminum 80 c.u. tank for $79.95. Customer Pays Shipping.

$79.95

DESIGNER PLUSH SUIT



Farmer John with step in shortie, plush lining with nylon exterior, 3/16" thickness w/flex material, cross zipper for easy entry, navy blue w/multi-color striping, knee pad & spine pad, women suit is french cut.

$165.00

SILICONE SPECIAL

SEA ELITE
•Sea Elite single lens mask; blue, yellow, clear, red.
SEA ELITE
•Sea Elite contoured snorkel with purge; blue, yellow, clear, red.
BEUCHAT
•Beuchat open heel fin; contact fin comes in black, blue, pink.

$63.95



Free Shipping And Insurance With Orders Over $75

CALL OR VISIT . . .
Information Express Line 1-912-474-6790
Toll Free Order Line (Out of state only) 1-800-241-4739
All our operators are certified divers
They speak your language
"Ask for free catalog"



SUSIE

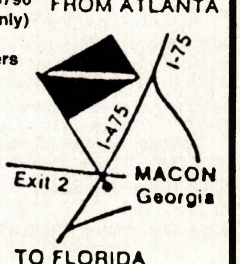


KAREN



BECKY

Open seven days a week
Same Low Prices In Store
Located on Interstate (at exit 2 on I-475)



Use and operation of the support equipment should not be undertaken without qualified and proper instructions in their use. This ad does not imply the sale of the life support equipment through the mail.

5208 Mercer University Dr.
Macon, Georgia 31210

FAMOUS "SKINDIVER"
CUSTOM WET SUITS
MADE IN U.S.A
NYLON 1 SIDE 61.95 NYLON 2 SIDE 101.95
(Circle One)

Order direct and SAVE!
Satisfaction guaranteed

Men's or women's custom tailored to your measurements with high pants and collar for super warmth. Finest wet suit material, completely nylon lined. Features sewn seams, noncorrosive zipper and twist locks. 1/4" or 3/16" material — mark your choice below. Just fill in your measurements and mail your order. Quicker delivery with Money Orders/Visa/MasterCard. Checks take 3 weeks to clear.



¼" 3/16"
Sex Age
Height
Weight
_____Ankle
_____Calf
_____Knee
_____Thigh
_____Hips
_____Waist
_____Chest
_____Neck
_____Wrist
_____Forearm
_____Elbow
_____Biceps
_____Ankle to Knee
_____Ankle to Crotch
_____Ankle to Waist
_____Shoulder Seam to Crotch
_____Wrist to Elbow
_____Bra and Cup Size
_____Wrist to Armpit
_____Hat Size

Include MC - VISA Expiration Date _____
☐ GLOVES $12.95 ☐ BOOTS $12.95
☐ HOOD $11.95 ☐ FARMER JOHNS $25.00
☐ ADD $3.00 for Each NYLON 2 Accessory
MEN OVER 225 lbs. AND/OR 6'4" ADD $35.00
MEN OVER 250 lbs. ADD $65.00
WOMEN OVER 175 lbs. AND/OR 5'10" ADD $35.00

$6.00 for Postage/Handling, $8.50 Canada, $15.00 APO/FPO
No C.O.D. WA State add Sales Tax, incl. Postage & Handling
VISA/MasterCard Orders Must Include Expiration Date.
CLIP AND MAIL THIS COUPON TODAY.

Skin Diver Wet Suits
1632 S. 250th
Kent, Washington 98032-5499
Phone: (206) 878-1613

Name _____
Address _____
City State Zip

BALD EAGLES ARE SORE LOSERS

BY DICK ANDERSON

Since 1980, 33 bald eagles have been released on Catalina Island, California. They were put there by David Garcelon through his Avalon based Institute for Wildlife Studies and in cooperation with the Santa Catalina Conservancy. The relocation worked! If you want to see a bald eagle, go to Catalina. It's closer than Alaska—unless you live in Canada.

I haven't seen one on the island yet, but I can relate an eyewitness account. A few months ago I was there on one of those exceedingly rare clear water diving jobs. An Avalon harbor patrolman named Raoul told me of his recent bald eagle sighting. I know Raoul wouldn't lie or exaggerate about this because he had a badge and everything and his eyes didn't shift nervously as he related the event.

Just west of Avalon harbor (it seems north but it isn't) squats Frog Rock—always threatening to jump but never actually doing so. One day Raoul was cruising by that point just in time to witness a majestic bald eagle swoop down and snatch a very surprised fish from the sparkling surface of the water.

Next, to Raoul's utter amazement, the eagle was dive-bombed by a very gutsy seagull. This had to be one of the most optimistic seagulls around—sort of like Sugar Ray Leonard telling Larry Holmes he was going to punch his lights out.

Anyway, the startled eagle dropped the fish, which was sort of large, and the opportunistic gull peeled off and grabbed it. Meanwhile, the eagle was regaining his composure and some altitude. He watched the frantic gull try to work the fish into the standard oversized fish swallowing position.

Now, did that bald eagle have the gamesmanship to say, "Well, that feisty little rascal sure out-foxed me this time?" Nope, old baldy executed a classic wingover, went into that rarely seen "sneaky seagull" attack attitude and blasted into the gulping gull like an Exocet missile. There was an audible crunch. Feathers flew. The greedy gull was locked in those steel talons, instantly dead, with the fish's tail still protruding from its maw.

The eagle poured on the steam and winged up and over the rocky cliffs, heading for his aerie in the distant mountain tops. He got his fish after all, now neatly repackaged.

"It was really something to see," Raoul said, to wind up the tale. I had to agree with that. And, on a far grander symbolic scale, it was sort of reassuring to know our national emblem won't take any guff from an ill-mannered seagull.

DIVE '87
COZUMEL
IS WAITING FOR YOU

SPECIAL GROUP RATE
One Free with 5 divers paid.
(Min. 10 paid divers)

- Full Week Dive Package
- Unlimited Diving
- 2 Meals Daily
- Mexican Hotel Tax

from $395.00 7 Nights
per person dbl. occ.

FOR RESERVATIONS OR INFORMATION PLEASE CALL OR WRITE:

ISV International Scuba Ventures DIVE TOURS
7322 SW Frwy., #140, Houston, TX 77074
(713) 477-0236
Toll Free 800-231-9707
In TX: 1-800-222-1537 At tone dial 995-837

DIVER LAPEL PINS
Hand-Enameled Cloisonne Dive Flag Pins



-GOLD FINISH-
actual size ½" x ⅜"

ONLY $9.95 EACH
plus $1.00 shpg/hndlg., send check or money order to:
Diver Pins • P.O. Box 237
W. New York, NJ 07093
NJ residents add 6% sales tax

STUDIO GALLERY
Three-dimensional painting or drawing of your own favorite underwater photo. For information, send self-addressed stamped envelope to: Studio Gallery, Nick Peters, 303 Park Ave., So., Ste. 311-A, New York, NY 10010 • (212) 673-1523

For honest answers about commercial diver training call —FREE
800-654-3483
in NY 800-847-8989
Commercial Diving Institute
151-19 POWELLS COVE BLVD. ☐ WHITESTONE, NY 11357

How to get high quality athletic wear & pay ½ of what you'd expect

Get your FREE color catalogue of Sport Europa's factory direct athletic clothing.

Includes following sports

- Running
- Cycling
- Swimming
- Snorkel
- Scuba
- All Around

To receive our new catalogue
CALL US TOLL FREE
1-800-327-7031
In Fla. (305) 821-4000
Mon-Fri - 10:00 AM-9:00 PM
Sat - 10:30 AM-6:00 PM
or send coupon to
Sport Europa
4557 SW 71 Ave., Miami, FL 33155

NAME

STREET ADDRESS

CITY STATE ZIP

TRI STATE CAMERA

160 Broadway, New York, NY 10038 1-212-349-2555 • Hrs: Open Sun. 10-4, Mon.-Thurs. 9-6, Fri. 9-2

VISA, MC ORDERS CALL TOLL FREE **1-800-221-1926**

NIKONOS	
NIKONOS V w/35 2.5	$ 404.95
ACTION TOUCH	154.95
15/2.8 w/FINDER	1,059.95
20/2.8 ... 389.95 28/3.5 ...	209.95
28/2.8 ... 139.95 80/4.0 ...	199.95
CLOSE-UP LENS SET	124.95
SB 101	CALL
SB 102 Outfit	604.95
SB 103 Outfit	299.95
NIKONOS V CASE	25.00
ALL ACC. IN STOCK	CALL

CANON	
AS-6 BASIC	$125.00
AS-6 W/ACC	145.00

U.S. NAVY DIVE MANUAL
Vol. 1.....$34.95 VOL. 2..... 27.95



Capsule 8

*2 hr. Recording
*Tested at 250 ft.
*All metal Housing
*Compact
*Lightweight

HANIMEX	
110 AMPHIBIAN	$89.95
110 MF FLASH	99.00
110 MF CLOSE-UP LENS	32.00
35 AMPHIBIAN	144.95
35 AMPHIBIAN OUTFIT	CALL
35 AMPHIBIAN FLASH	94.95
35 AMPH. W.A. LENS	79.95
35 AMPH. CLOSE-UP	29.95
35 AMPH. MACRO	40.00

World's smallest underwater video system! The SONY Handycam 8mm video camcorder and the Capsule 8 aluminum underwater housing features an ultra wide-angle lens, U/W microphone, shoe mount for a NIKONOS Camera adapter and 2 shoe mounts for U/W lights!

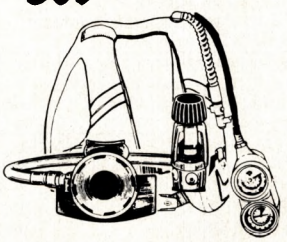
CALL FOR OUR LOW PRICE!



SCUBA III WORLD

TOLL FREE ORDER HOT LINE
FLA 1-800-826-9658
US 1-800-843-3916

ECONOMY PACKAGE $309.00



COMPLETE STARTER PACKAGE $99.00

SPECIALS

Combo w/Max-Depth	$74.95
Hard Sole Boots N2	19.95
12 lb Weight Belt	17.50
Silicone Vent Snorkel flex or standard	9.95
Advanced Style B C	189.95
Mini-C Light	24.95
Plush Hood	29.95
1/8 Farmer Wetsuit	179.00
Deluxe Gearbag	29.95

Includes: Lifetime Warranty Regulator
Combo Guage w/max-depth
BC Jacket w/power inflate
for Advanced Style Vest add $40.00



Includes: Mask, Snorkel, Fins Weights, Belt, Gloves & Boots

DRIVING OR FLYING TO CENTRAL FLORIDA
VISIT ANY OF OUR THREE LOCATIONS
FOR THE BEST IN DIVING VALUES

ALTAMONTE SPRINGS	WINTER PARK	LONGWOOD
935 W. SR 436	1045 N. Semoran	1667 S. U.S. 17-92
862-5489	677-5489	695-0991

Life support equipment should not be used or operated unless properly trained and certified. This ad does not constitute an offer to sell via mail order.

DIVER'S DIRECTORY



VISA MasterCard

Rates $162 for 3 consecutive ads, $276 for 6 consecutive ads, $420 for a full year. PAYMENT MUST ACCOMPANY COPY. VISA/MC accepted. DEADLINE: 28th of 3rd month prior to issue date. Send copy and payment to: Diver's Directory, c/o Direct Marketing Division, P.O. Box 69910, Los Angeles, CA 90069. Call 213/854-2700 for more info. To place VISA/MC order call 800/231-4053 (U.S. only, outside CA).

ALABAMA

MCWHORTER ENGINEERING CO. 205/836-2814
P.O. Box 9014, Plant 1053, Gadsden Rd., Birmingham, AL 35213
Rebuilts, parts, accessories, ASME coded.
HP air compressors, units, systems, since 1952.

ARIZONA

BLUE WATER ADVENTURES, INC. 602/645-3087
P.O. Box 3467, Page, Arizona 86040
Specializing in custom boat tours of Lake Powell,
max. 6 divers, SSI inst., rentals, air, sales.

ARKANSAS

RICK'S PRO DIVE'N SKI SHOP, INC. 501/753-6004
2323 N. Poplar St., N. Little Rock, AR 72114 501/753-6060
PADI Five Star Instructor Development Center w/Indoor Pool
Dive Charters, 2 Cust. Dv. Boats—We teach 11 PADI Specialties.

CALIFORNIA

AQUARIUS DIVE SHOP 408/375-1933 or 375-6605
2240 Del Monte Ave., Monterey, CA 93940 (or)
32 Cannery Row, Unit 4, Monterey, CA. Guided Underwater Tours.
Specialize in U/W Photo. & trips. "Pacifically The Finest."

ARGO DIVING SERVICES 213/510-2208
314 Metropole, P.O. Box 1201, Avalon, CA 90704
Guided underwater tours and instruction by
Jon Hardy on Catalina Island. Free information.

BLUE DOLPHIN HOUSE—Catalina Island 213/510-1811
603 Beacon St., P.O. Box 2605, Avalon, CA 90704
2 bdrm. vacation rentals w/kitchen, cater to divers.
Boardsailing, diving instruction, sales, rentals, air.

CATALINA DIVERS SUPPLY 213/510-0330
Avalon, Santa Catalina Island, CA 90704
Rentals, sales, air. 3 locations: Pleasure Pier,
Avalon Underwater Park, Lover's Cove.

GUCCIONE'S SCUBA HABITAT 714/594-7927
3220 Brea Canyon Rd., Diamond Bar, CA 91765
PADI 5 Star instr. develop. center. Family owned & operated.
'See Vue' & 'Atlantis' dive boats. 32' Radon for small groups.

MARINA DEL REY DIVERS 213/827-1131
2539 Lincoln Blvd., Marina Del Rey, CA 90921
Open 7 days, boat trips, rentals, sales, instruction in all levels. We serve Margaritas!

PASADENA DIVERS WEST 818/796-4287
2695-A E. Foothill Bl., Pasadena, CA 91107
Sales, service, air, PADI, NAUI, instruction.
Rentals, boat trips, underwater photography, tours.

SCUBA DISCOVERIES 415/394-6555
651 Howard Street, San Francisco, CA 94105
Rentals-Sales-Air-PADI-Local & Foreign Dive Trips-Instruction.

SCUBA DUBA DIVE 818/881-4545
7126 Reseda Bl., Reseda, CA 91335
Mon. - Sat. 10-7. Underwater photo specialist.
Boat trips, instruction, sales, service, rentals.

SCUBA LUV 805/496-1014
704 Thousand Oaks Blvd., Thousand Oaks, CA 91360
Home of the dive boat SCUBA LUV'ER.
Specialist in California Channel Islands Diving.

STAN'S SKIN DIVING SHOP 408/998-0767
554 So. Bascom Ave., San Jose, CA 95128
Full service shop over 25 years in the same location.
Sales of all major brands plus instruction, boat trips etc.

SUB-SURFACE PROGRESSION 707/964-0728
18600 No. Hwy. 1, Fort Bragg, CA 95437
Mendocino Coast's most complete professional dive shop.
¼ Mile South of the Hwy. 20 Intersection. Great AB diving.

TRI-VALLEY SCUBA SCHOOL, INC. 415/828-5040
21310 San Ramon Valley Bl., San Ramon, CA 94583
Scubapro Dealer & full line of major brands.
The East Bay's "full service" pro dive store.

WATER EDUCATION TRAINING (WET) 619/693-DIVE
7094 Miramar Road (at Distribution Ave.), San Diego, CA 92121
YMCA, PADI, NAUI resort courses through instructor. Free weekly scuba refresher classes. Full service vacation facility. Get WET.

WEST COAST DIVERS SUPPLY 818/708-8136
16931 Sherman Way, Van Nuys, CA 91406 818/708-8137
Rental, Sales, Repair, Instruction, Travel Program. PADI, NAUI and L.A. County. Hours: Monday through Saturday 10-7.

WET PLEASURE 408-984-5819
2350 El Camino Real, Santa Clara, CA 95050 800/24-SCUBA
"Specialists in Underwater California".
Local diving adventures every weekend.

CONNECTICUT

BYRAM BAY SPORTS, INC. 203/853-1005
606 West Avenue, Norwalk, CT 06850
Fills, Rentals, Trips, Repairs & Sales.
Area's most Comprehensive year-round scuba school.

CENTRAL SALES SCUBA 203/283-5007
136 Carter Rd., Thomaston, CT 06787 Ken Mischou, owner
Connecticut's most affordable dive shop. $1 air fills.
Classes, rentals, hydros, trips, repairs, used gear.

MULTITECH MARINE SWIM & SCUBA CENTER, INC. 203/739-9596
180 Flanders Rd., Niantic, CT 06357
Sales, srvcs., rentals, travel, classes, activities. PADI 5 Star facil., Scubapro, Tekna, TUSA, UK, Ikelite, BlueWater, Parkway.

ORBIT MARINE SPORTS CENTER, INC. Open all year!
3273 Fairfield Ave., Bridgeport, CT 06605 203/333-DIVE
Foot of Broad St., Stratford, CT 06497 203/377-6969
Sales, rentals, air, service, NAUI, PADI instr., charters.

THE DIVING BELL, LTD. 203/775-3573
461 Federal Rd., Brookfield, CT 06804
Open all year. 5 Star PADI instruction. Specialties, Travel, Photo, Rentals, Repairs, Gifts.

FLORIDA

A CRYSTAL RIVER, Florida Condo 904/372-7952
The comforts of home in a Diver's Paradise.
New Dive Shops, equipment rentals. Canoe, dock & pool included. $350 per week from April 1st.

A KEY LARGO 3BR/2B WATERFRONT HOME 305/661-1507
40' Dock, only 2 minutes to Pennekamp.
Sleeps 8 with comfort, available weekly or longer.

AMERI DIVE 305/395-4407
7166 Beracasa Way, Boca Raton, FL 33433
Del Mar Shopping Village, corner Powerline & Palmetto.
Instr., sls., rental, svs., air, travel, resorts, Scubapro, PADI.

AMERICAN DIVERS 305/942-3000
2507 N. Ocean Bl., Pompano Beach, FL 33062 800/448-0808
*****PADI Training Facility . . . Come on down . . .
Dive the MERCEDES on our spacious 53' Sea Eagle.

AQUA SHOP 305/848-9042
505 Northlake Blvd., North Palm Beach, FL 33408
Full Service Dive Shop, 2 Coast Guard Charter Boats, Daily Reef Trips, Master Dive Program, Drive-up Airfills.

BRENT FEINMAN'S SCUBA WORLD BY THE SEA 305/771-3933
4339 A Ocean Dr., Lauderdale-By-The-Sea, FL 33308 (STAY WET)
PADI 5 Star Facility, air, sales, svs., rentals, dive charters, beach diving. All levels of cert. Priv. & Group lessons.

CRYSTAL LODGE MOTEL & DIVE CENTER Dive Shop 904/795-6798
U.S. 19 N., P.O. Box 456, Crystal River, FL 32629 Motel 795-3171
Manatee & spring diving, boats, equipment rental.
Heated pool, seafood, bar, rooms at low prices.

DIVE MIAMI Reservations:
"Gold Diver II" Custom Dive Boat 305/672-DIVE
30 min. to Miami's 20 wrecks & reefs 800/325-1337-at
U/W photography, PADI instruction. tone dial "Dive"

DIVER'S DEN
12614 N. Kendall Dr., Miami, FL 33186 305/595-DIVE
8280 State Rd. 84, Ft. Lauderdale, FL 33324 305/473-9499
PADI 5 Star instruction, sales, service, rentals, trips, air, photo.

DIVER'S DEN/PNEUMATIC SYSTEMS, INC. FL 904/871-4777
4720 E. Bus Hwy. 98, Panama City, FL 32404 800/272-4777
Sales, rentals, service, fast charter boats, 6-15 passengers.
Instr. NAUI, PADI. Compressor sales, service, maint., overhaul.

DIVERS UNLIMITED 305/981-0156
6023 Hollywood Bl., Hollywood, FL 33024
Awarded #1 training facil. by PADI. All brands, whsl./rtl., daily boat trips, repair, rental, classes, travel. 5 Star PADI IDC training facility.

DIVERS UNLIMITED/FORT LAUDERDALE 305/524-4862
440 Seabreeze Bl., Ft. Lauderdale, FL 33316
Daily boat trips, training dives, classes, retail—all brands, leisure-wear, rentals. Packages w/Days Inn. 5 Star PADI training facility.

DIXIE DIVERS
Of Ft. Pierce, 1717 S. U.S. 1, FL 33450 305/461-4488
Of Stuart, 1843 S.E. Federal Hwy., FL 33494 305/283-5588
PADI 5 Star IDC facility. Open 7 days, full service.

FANTASEA SCUBA HEADQUARTERS 904/837-0732
P.O. Box 5498, #1 Hwy. 98, Destin, FL 32541 904/837-6943
PADI 5 Star instructor Development Center, D.V.I. resort, sales & service, gulf charters, instruction, rental, air, travel.

FORCE-E, 1399 N. Military Trl., W. Palm Bch., FL 305/471-2676
877 E. Palmetto Pk. Rd., Boca Raton, FL 305/368-0555
2700 E. Atlantic Blvd., Pompano Beach, FL 305/943-3483
2104 W. Oakland Park Blvd., Ft. Lauderdale, FL 305/735-6227

GINNIE SPRINGS, INC. 904/454-2202
Rt. 1, P.O. Box 153, High Springs, FL 32643 800/874-8571
Six 72° clear blue springs, camping, canoeing.
Complete resort dive facility. Cavern instruction.

GOLD COAST CHARTERS, INC. 305/842-6356
113 Timber Run E., West Palm Beach, FL 33407
Palm Beach Custom diving 7 days a week. Reefs & Wrecks
We dive YOUR selected sight! 2 USCG certified dive boats.

GULF STREAM DIVER SCUBA CHARTERS 305/965-7878
2315 Caroma Lane, West Palm Beach, FL 33406
Palm Beach daily reef & wreck dives, pro charters,
Bahama boat trips. 2 new USCG 38' & 41' cust. dv. boats.

HYDROSPACE DIVE SHOP 800/874-3483
3605-A Thomas Dr., Panama City Beach, FL 32407 904/234-9463
The Gulf Coasts' largest and most experienced dive service.
5 boats 46', 42', 40', 24'. Full service facility.

JIM HOLLIS' RIVER RENDEZVOUS US 800/247-3373
Route 2, Box 60, Mayo, Florida 32066 FL 800/537-3373
Lodging, restaurant, sauna, steam room, jacuzzi, & modern camping.
Tubes, canoes, spring tours, rentals, 3-Day YMCA Scuba Courses.

LAUDERDALE DIVER 305/GO-SCUBA
1334 S.E. 17th St., Ft. Lauderdale, FL 33316 "On the Causeway"
Complete master diver program. PADI distinguished service award. Instr., sales, service, air, photo, trips. Widest selection.

MAC'S SPORTS 813/442-9931
2126 Drew St., Clearwater, FL 33575
One of the world's largest diving & snow ski stores and school. Pool and Ski Deck on premises.

MANATEE HEADQUARTERS/7 RIVERS INN 904/795-2776
744 U.S. Hwy. 19, Box 124, Crystal River, FL 32629
Dive tours & brand new motel. $43.43 p.p. dbl. & $54.70 single.
manatee dive, King Spring & Rainbow River. Full svs. shop.

NORINE ROUSE SCUBA CLUB OF THE PALM BEACHES
4708 North Dixie Hwy., West Palm Beach, FL 33407 305/844-2466
America's only country club for divers.
Dive trips six days a week.

PANAMA CITY DIVE CENTER 904/235-3390
4823 Thomas Drive, Panama City Beach, FL 32407
Quality sales, service, daily charters.
Scubapro, Tabata, Sherwood. NAUI and PADI.

PLANTATION INN MARINA 904/795-5797
P.O. Box 1093, Crystal River, FL 32629
Instruction, rentals, boats, canoes, pkg. deals, pvt. Manatee obser. deck and air sta. at Divers Giant Spring. Golf, tennis, 150 rooms.

PROFESSIONAL DIVING SCHOOL/CHARTERS OF FLORIDA
Bahia Mar Yachting Center, Ft. Lauderdale, FL 33316
Basic-Divemaster training/specialties—night, deep, wreck,
"Instructor." Daily reef & wreck dives. 305/761-3413 800/772-DIVE.

RENTALINE COMPRESSORS—Destined for those great dive sites in the tropical Caribbean? Rent a scuba compressor to take along. Miami departures to the Keys, Bahamas, Cayman Islands, etc. For information 305/652-5972.

SCUBAWORLD OF TAMPA, INC. 813/887-1089
7010 Sheldon Road, Suite 500, Tampa, FL 33615
PADI * Full Service * Daily Gulf Trips *
Sony Video Rental * Certification Dives *

SEAPRO SCUBA CENTER 305/844-DIVE
3619 Broadway, Riviera Beach, FL 33404
PADI 5 Star facility. Sales, service, instruction, rentals, charters, air. Action sportswear. Tekna scooter rental.

TALLEY'S PRO DIVE 904/795-2776
P.O. Box 124, Crystal River, Florida 32629
Open wtr. cert. 3 days of fun $200. SHERATON INN pkg. rates. Full svs. dive ctr. Tours: River Artifacts, Caver Cavers, Photog. Manatee.

THE SCUBA SHACK, INC. 305/334-8808
2485 N.E. Dixie Hwy., Jensen Beach, FL 33457
The Treasure Coast's oldest full service dive shop.
PADI instruction, air, sales, rentals, repairs, trips.

UNDERWATER VIDEO PRODUCTIONS (Ft. Lauderdale) 305/760-4158
#1 in Professional Broadcast Quality Videos, specializing in Promos for dive shops & Custom Videos for sngls./grps. We go anywhere, anytime to make you a star . . . VHS/Beta/3/4" formats.

FLORIDA KEYS

A DESIGN YOUR OWN KEY WEST DIVING/FISHING VACATION
P.O. Box 473, Key West, FL 33041 305/296-3737
Canal home w/fully equip. boat at back doorstep-max. conven. Capt. takes you best spots dvg., lobster, spearfish, st. crabs, fish, etc.

ADMIRAL I—65 FEET OF COMFORT AND FUN! U.S. 800/346-DIVE!
P.O. Box 0113, (MM 100), Key Largo, FL 33037 800/533-DIVE!
Scuba/snorkel trips to Pennekamp Reefs! PADI Certification courses start daily! Group & room package plans. 305/451-1114.

A KEY LARGO CONDO Call collect 813/939-3612
Moon Bay deluxe 2 BR, 1½ bath w/dock, sleeps 6. Near Pennekamp, dive centers, marinas and Largo cut. Scuba, snorkel, fishing, skiing, tennis. $395 per wk. Reserve early.

AMERICAN DIVING HEADQUARTERS, INC. 305/451-0037
Rt. #1, P.O. Box 274-B, Key Largo, FL 33037
SSI, PADI, NAUI. Pennekamp our specialty for 25 years. 2-7 day packages, ½ & all day trips. For res. call toll free 800/634-8464.

AQUATIC FLOATING SEA COVE MOTEL 305/289-0800
12685 Overseas Hwy., Marathon, FL 33050
Budget Rates. Summer $19-$39, Winter $24-$44 for two.
Private deep harbor & ramp on Atlantic. A#1 rooms and effs.

A WATERFRONT DUPLEX 305/852-5230
Savor moonrise & palms at your 60' dock! 5 mi. to reef, wrecks Pennekamp. Tie up your boat or sample many charters. We have ambiance, windsurfing, etc.! Sleeps 4 $395/wk., wknds. negotiable.

BIG PINE SEA CENTER DIVE SHOP 305/872-2319
P.O. Box 515, MM 29.5 US#1, Big Pine Key, FL 33043
Dive Looe Key, #1 Reef in FL. Keys, full service shop.
Dive/lodging packages, custom boats.

BUDDY'S DIVE SHOP Nat'l. 800/223-4707; FL 800/367-4707
P.O. Box 409, Islamorada, FL 33036 MM 79.5 305/664-4707
Dv. aboard our 40' 'Scuba Safari' & 34' 'Free 'n Clear'. Full/½ day trips to Alligator Reef, Cannabis Cruiser & Coral Gardens. Pkgs. avail.

CAPTAIN CHAMBERS CHARTERS 305/451-1805
P.O. Box 2258, Key Largo, FL 33037 MM 100 Dive Pennekamp
31' cust. boat w/sundeck., 6 max. Guided dvs., U/W camera, brunch served, cust. dv. pkgs. avail. Rec. by Undercurrent 3/82.

CAPT. CORKY'S DIVERS' WORLD of Key Largo, Inc. 305/451-3200
P.O. Box 1663, Key Largo, FL 33037 MM 99.5 U.S. 1 past Wendy's
Bahamas/Pennekamp, U/W video rental, snkl. w/dolphins, PADI instr., grp. rates, dive, snkl., sail, shell collect, spearfish. Best pkg. rates!

CAPT. GREG'S SCUBA-DO 305/451-3446
P.O. Box 2237, Key Largo, FL 33037 MM 100 @ 100 Marina
Dive Pennekamp, 34' Boat, 6 max. No crowds. Personal Service. Combin. Dive & Fish Trips Avail. Pkg. Rates.

CAPT. SLATE'S ATLANTIS DIVE CENTER 800/331-DIVE
51 Garden Cove Dr., Key Largo, FL 33037 MM 106.5 305/451-1325
Dive Pennekamp on 1 of 4 cust. boats. NAUI, YMCA, PADI, CMAS. Instr., air & rentals., grp. & multi-dive disc. pkgs., gifts.

CORAL LAGOON RESORT AT THE DIVING SITE 305/289-0121
Deluxe waterfront efficiences with private sundecks, gazebos, dockage, pool, tennis, bikes. PADI dive shop, dive packages.
PADI dive shop, lessons, 3 boats, groups, spring/fall dive pkgs.

DIVE KEY WEST 305/296-3661
"Carol J", P.O. Box 2842, Key West, FL 33045
Disc. room pkg. & grp. rates. Max. 6 divers.
Lobster diving & spearfishing, rentals & air.

FLORIDA KEYS DIVE CENTER 305/852-4599
P.O. Box 391, Tavernier, FL 33070 6 pass. dive boats.
5-STAR facility & dive charters, 4 day instr. & specialties.
Reefs, wrecks, spearfish, Pennekamp & more.

GOLDEN KEY MOTEL 305/664-4418
U.S. Rt. 1, P.O. Box 710, Islamorada, FL 33036 MM 81
Free dockage & boat ramp, waterfront cottage,
rooms with stove & refrigerator, picnic & barbeque area.

HALL'S DIVING CENTER & RESORT 800/331-4255
1688 Overseas Hwy., Marathon, Fla. Keys 33050(in FL) 305/743-5929
Beautiful reef & wreck diving trips-Largest store & instruction.
facility in the Keys—motel/condo diving packages arranged.

HAWK'S CAY RESORT & MARINA — US 800/327-7775
MM 61, Marathon, FL 33050 — FL 800/432-2242
Tennis, pools, jacuzzis, reef trips, PADI. — 305/743-7000
Custom-built dive boats, air/equip. rental, instr., pkg. rates.

HOLIDAY ISLE DIVE CENTER — 305/664-4145
P.O. Box 482, Islamorada, FL 33036 MM 84.5 — FL 800/432-2875
All new "Wreck Diving" — US 800/327-7070
All new 22 passenger dive boat.

KELLY'S MOTEL and MARINA — 305/451-1622
P.O. Box 75, Key Largo, FL 33037 (MM 104.5)
1 mi. from John Pennekamp. In heart of dvg. dist. Dv. pkgs. avail.
On the water/jacuzzi/bbq area/boat ramp/swim/fish/dock/cable/HBO.

KEY LARGO—From Studio apt. to 3 bedroom 2½ bath apt.
Tennis, pool, dockage. Close to all dive shops & boat
rentals from $200 per week.
Call 312/357-6285.

KEY LARGO BAYFRONT HOME—Dive/Snorkel/Sail — 305/255-4556
P.O. Box 161414, Miami, FL 33116
3 bedrooms/2 bath gorgeous, new lushly landscaped private home
w/dock. Luxuriously furnished, fantastic rates—less than motel room.

KEY LARGO CONDO — 305/433-8073
3 BR., 1½ Bath, completely furnished. — 305/546-2275
Marina, saunas, tennis, pools, 2 mi. to Pennekamp Park.
Great diving, fishing, sailing. Special summer rates.

KEY LARGO CONDO/DIVE-FISHING — 305/251-9568
P.O. Box 160057, Miami, FL 33116
2 Bdrm./2 bath, on ocean within Pennekamp Park boundary, ramp,
pool, marina facility, dock, tennis, best security. Weekly, monthly.

KEY LARGO LUXURY CONDO — 513/984-0866
Oleinik, 8555 Blue Cut Lane, Cincinnati, OH 45243
Luxuriously decorated, 2 bedroom, dock, pool,
sauna, tennis. Minutes from best dive areas.

KEY LARGO OCEANFRONT APTS. 305/852-5312 or 305/852-9383
On the ocean: Molasses, French & Conch Reefs at your front door.
Large lagoon, boat ramp, minutes to diving/fishing, 2 BR. apts.,
kitchens, all amenities. Weekend, week or monthly rental.

KEY WEST DIVER INC.—CAPT. BILLY DEANS — 305/294-0660
c/o Reef Raiders Dive Shop, U.S. #1, Stock Isle, Key West, FL
33040. Dive the Sambos, Ten Fathom Ledge, WWII wrecks,
USS Wilkes-Barre. Every dive an adventure.

LADY CYANA DIVERS — 305/664-8717
P.O. Box 1157, Islamorada, FL 33036 MM 85.9 — 800/221-8717
26', 40' & 60' dive boats. Reefs, galleons, wrecks & The 'Eagle'.
Complete pro shop, instruction, packages, photo center.

LOOE KEY RESORT & MARINA — 305/872-2215
P.O. Box 509, Ramrod Key, FL 33042 MM27½
40' Glass Bottom Boat, Motel, Restaurant, Dive Shop, Dockage,
Ramp, Pool, Tiki Bar, Diving Inst., Custom Dive & Snorkel Boats.

PENNEKAMP PARK CONCESSION — 305/451-1621
P.O. Box 1560, MM 102.5, Key Largo, FL 33037 — FL 800/432-2871
The only dive shop located directly in Pennekamp.
Free brochure, send 50¢ for reef chart.

PLANTATION KEY LARGO LUXURY CONDO — 305/852-5748
c/o 195 N. Airport Rd., Tavernier, Florida 33070
Beautiful 1 BR condo (sleeps 4) on bay. Has everything.
Boat ramp & docks. $295/wk. May-Nov., $350/wk. Dec.-Apr.

RENT 20' FLORIDA KEYS DIVE BOAT — 305/743-0391
and stay aboard 46' furnished houseboat, color TV,
A/C, sleeps 6. Dive Pennekamp, Looe Key,
Alligator Reef, crystal dive water. $795.00 week.

ROCK REEF RESORT — 305/852-2401
P.O. Box 73, Key Largo, FL 33037 MM 98
Divers' Paradise, beach, jacuzzi, packages available,
comfortable accommodations and comfortable prices.

SEA DWELLERS SPORTS CENTER — 305/451-3640
99850 Overseas Hwy., Key Largo, FL 33037 — 800/451-3640
Reef trips daily to Pennekamp Underwater State Park.
Dive package with Key Largo Holiday Inn.

SEAFARER RESORT MOTEL — 305/852-5349
P.O. Box 185, Key Largo, FL 33037 MM 97.8 (Gulfside)
"Fantasy Island" setting. Real, sandy beach & free paddleboat.
Spotless rooms, effs. & apts. at best dollar value plus group rates!

SEA HORSE MOTEL — 305/743-6571
7196 Overseas Highway, Marathon, FL 33051
Budget or waterfront rooms or efficiencies, 300' dockage
ramp, pool, dive pkgs. Experience the American Caribbean.

SEA TRAIL MOTEL — 305/852-8001
Rt. 5, P.O. Box 91, Key Largo, FL 33037 MM 98.5
Cable TV, air-conditioned,
refrigerator, budget rates.

STEPHEN FRINK PHOTOGRAPHIC, INC. — 305/451-3737
P.O. Box 2720, Key Largo, FL 33037 MM 102.5 — 800/451-3737
Photo Tours, Instruction, Processing,
Camera Rentals, Stock Photos, U/W Video.

THE DIVING SITE, INC. — US 800/634-3935; FL 800/821-9155
12399 Overseas Hwy., Marathon, FL 33050 MM 53.5
16 & 30 pass. dive boats. Daily reef trips. — 305/289-1021
Charters & group rates, PADI lessons, sales, repairs, dive pkgs.

TRIANGLE WATERSPORTS, INC. — 305/745-BOAT
Rt. 2, P.O. Box 617, Summerland, FL 33042 — 305/745-2628
Cust. dv./snork. trips to Looe Key/unique Lower Key reef sites/back
cntry explrng. Spearfish/lobster/fish/sail. Avail. aboard 3 cust. boats.

GEORGIA

DIVERS SUPPLY — 912/474-6790
5208 Mercer Univ. Dr., Macon, GA 31210
PADI training facility, all major brands.
Located at exit 2 on I-475.

DIVING WORLD USA — 404/634-4354
2945 Buford Hwy., Atlanta, GA 30329
All brands, wholesale, retail, repair, rental, trips.
YMCA, NAUI, PADI classes. 3 man chamber.

HAWAII

AARON'S DIVE SHOP — 808/262-2333
602 Kailua Rd., Kailua, Oahu, HI 96734 — 808/261-1211
Dive w/the best in Hi. Daily dives, 4 day cert. Referrals.
Rntls. complete w/cameras & scooters since '71. Write for info.

ALOHA DIVE SHOP—KOKO MARINA — 808/395-5922
Koko Marina Shpg. Ctr., Honolulu, HI 96825 — 808/395-8882
"Diving is fun" with Jackie and her friends.
Scuba resort cert., boats, tours, sales, rental, all cert.

AQUATIC CHARTERS OF MAUI — 808/879-0976
P.O. Box 1028, Puunene, Maui, HI 96784 — 808/874-0859
Daily dv. Molokini send $29 U/W video of Maui dv. sites and
Molokini Crater. VHS/Beta MC/Visa. PADI Instr. U/W video svs.

AQUATICS KAUAI — 808/822-9213
733 Kuhio Hwy., Kapaa, HI 96746
Full service, PADI, NAUI, SSI, U/W video taping & photo.
Custom packages & tours aboard our 38' Wilson.

CENTRAL PACIFIC DIVERS — 800/551-6767
780 Front St., Lahaina, Maui, HI 96761 — 808/661-8718
Maui's most popular dive operator for over 15 years. 2 & 3
tank dives. Two 43' boats. Very experienced staff. Classes.

DIVE KAUAI — 808/822-0452
976 Kuhio Hwy., Kapaa, Kauai, Hawaii 96746
Kauai's only PADI 5 Star, Largest sport & commer'l facil., Sales,
rntls., free air, 2 day cert., sml. pers. chtrs., indv./grp. pkgs.

DIVE MAKAI CHARTERS — 808/329-2025
P.O. Box 2955 S, Kailua-Kona, HI 96745
Diving with a difference—we care! Write to Tom & Lisa.
Rated Kona's best every year since '76 by Undercurrent.

DIVE MAUI INC. — 808/667-2080 or 661-4363
Lahaina Market Pl., Lahainaluna Rd., Lahaina, Maui, HI 96761
36 Passenger boats daily to Lanai, Maui, Molokini.
Instruction, open water check outs, photography. Pkgs. avail.

ELITE DIVES HAWAII — 808/396-8386
Suite 158, 377 Keahole St. #6, Honolulu, HI 96825
Experience Oahu's best sites: 30' custom boat, instructor
guides, deluxe equip., onboard meals, hotel pickup, 6 max.

FATHOM FIVE DIVERS/KAUAI — 800/422-DIVE
P.O. Box 907, Koloa, Kauai, HI 96756 — 808/742-6991
Specializing in small personal charters, daily trips.
NAUI and PADI instruction, air, rentals, photography.

HAWAIIAN WATERCOLORS — 808/379-3584
P.O. Box 616, Kihei, Maui, HI 96753
Experts in dive charters, U/W video, U/W photography.
Contact Ed Robinson for information.

KOHALA DIVERS, LTD. — 808/382-7774
P.O. Box 4935, Kawaihae Shopping Ctr., Kawaihae, HI 96743
Professional Full Service Diving Center.
Finest diving in the United States.

KONA COAST DIVERS — 808/329-8802
75-5614 Palani Rd., Kailua-Kona, HI 96740 — 800/KOA-DIVE
Hawaii's only Full On Service Facility. — (for boat
RATED #1 by the LOCALS, "Just ask anyone." — resv. only)

LAHAINA DIVER'S INC. — 800/367-8047 ext. 102
710 Front St., Lahaina, Maui, HI 96761 — 808/667-7496
Daily trips aboard 2 fastest, most comfortable boats in
Hawaii. Most personable staff. Maui's only PADI 5 Star.

LEEWARD DIVE CENTER — 808/696-3414
85-979 Farrington Hwy., Waianae, HI 96792
Full service dive center, NAUI, PADI. Daily charters to
shipwrecks, lavatubes, ledge dive and over 50 different dive locations.

LET'S GO SHORE DIVE'N — 808/322-6490
78-6842 Alii Drive #8-102, Kailua-Kona, Hawaii 96740
Twice the fun, half the price! Economical dives mean more dives.
Come as friends, leave as family!

MAUI DIVE SHOP — 808/879-3388
Azeka Place—Kihei & Lahaina Cannery—Lahaina
2 Locations on Maui, 5 day class, beginners lessons.
Sales, rentals, air, free dive map, PADI 5 Star.

Mike Severns Scuba Diving — 808/879-6596
P.O. Box 627, Kihei, Maui, HI 96753
Personalized diving for the comfortable, experienced diver.
Two to six certified divers only. Contact Mike Severns.

OCEAN ACTIVITIES CENTER — 808/879-4485
3750 Wailea Alanui, D-2, Wailea, HI 96753
Hawaii's only dive lodge: Hotel Lanai.
Daily dives to Molokini, La Perousse, Kahoolawe, Lanai.

OCEAN ADVENTURES, INC. — 808/487-9060
98-406, Kam. Hwy., Pearl City, HI 96782
PADI 5 Star instructor development center, diver vehicles, tours,
group pkgs., boat dives, cameras, 3/4 day certs.

SANDWICH ISLE DIVERS — 808/329-9188
76-6131 Plumeria Rd., Kailua-Kona, HI 96740
Daily boat charters, maximum 6 divers, night dives, PADI classes.
Packages, combo fish/dive charters avail. Undercurrents choice.

SEA DREAMS HAWAII — 808/329-8744
P.O. Box 4886, Kailua-Kona, HI 96745 — 808/322-6118
Full day, 3 tank charters on fast new power catamaran for ex-
perienced divers only, twice weekly. PADI instr., owner operator.

SEA PARADISE, SCUBA — 808/322-2500
P.O. Box 5655, Kailua-Kona, HI 96745
Kona's best charter company. Explore reefs, lava tubes & archways.
Our "pampered diver" service will spoil you forever. PADI & NAUI.

SEA SAGE DIVING CENTER — 808/822-3841
4-1378 Kuhio Hwy., Kapaa, Kauai, HI 96746
Safely serving Kauai since 1973. Complete pro facility.
Boat/shore trips. Accommodation pkgs. available.

SOUTH SEAS AQUATICS — 808/538-3854
1050 Ala Moana Bl., Honolulu, HI 96814 — 808/538-3856
Dive the Mahi, 165' shipwreck and lava tubes! Daily boat charters.
Full service pro dive store since 1961. Write for free brochure.

THE DIVE SHOP OF KIHEI LTD. — 808/879-5172
1975 S. Kihei Rd., Kihei, Maui, HI 96753
Daily Dive & Snorkel trips to Molokini Crater, 4-5 day
Scuba Classes, Windsurfing, Sailing, rentals, full service.

TOUR MASTER ASSOCIATES — (Call Collect) 615/482-1645
100 Caldwell Drive, Oak Ridge, TN 37830
Individual & group packages—Maui, Kona, Kauai. Oceanfront condos/
boat & beach diving. Commission and tour leader allowances.

WAIKIKI DIVING CENTER — 808/955-5151
1734 Kalakaua Ave., Honolulu, HI 96826
Waikiki's only pro dive shop. PADI & NAUI facility. Boat &
beach dives, 3 day cert., charters, free brochure.

ILLINOIS

I.I.D. SCUBA SHOP, INC. — 312/858-4485
800 Roosevelt Rd., Bldg. D, Glen Ellyn, IL 60137 — 312/HOW-DIVE
Multi-level training through instructor. Full lines and service,
drive-up air station. SSI, NAUI, PADI, YMCA & Warranty, Travel.

THE BLUE HOLE DIVE SHOP — 309/676-1852
4817 Farmington Rd., Peoria, IL 61604
SSI, NAUI, PADI, YMCA & Warranty. Full lines & svs., multi-level
trng. through instr., travel, air to 5,000 PSI, comm. dvg. & trng.

THE GEAR BAG, INC. — 312/637-FINS
1605 N. Newland, Chicago, IL 60635
Located at 6900 west on North Avenue.
NAUI pro facility & PADI training facility.

INDIANA

SCUBA LAKE MICHIGAN CHARTERS — 219/287-2223
Capt. Ernie Piotrowski, 234 N. Albert St., S. Bend, IN 46619
Dive aboard Sea Quest II. Club/shop rates, rentals.
Special Mon.-Fri., 5-tank charters, discount program.

LOUISIANA

SEA HORSE DIVING ACADEMY, INC. — 504/246-6523
5400 Crowder Blvd., Unit "E", New Orleans, LA 70127
PADI 5 Star Instructor Development Center, quality
instruction, equipment, service and dive travel.

MAINE

AQUA CITY SCUBA, INC. — 207/873-0266
11 Water St., Waterville, ME 04901
Sales, in-shop repair service, rentals, NAUI & PADI
training facility. Central Maine's largest dive shop.

CAMP WEKEELA FOR BOYS/GIRLS: Canton, Maine — 614/235-3177
130 S. Merkle Rd., Columbus, OH 43209 — Contact: Eric/Lauren
Scoblionka. Seeking spectacular dynamos June 19-Aug. 22 for
SCUBA waterfront position. PADI Cert., experience preferred.

HARBOR DIVERS — 207/244-5751
Rt. 102A, Star Rt., Box 40, Bass Harbor, ME 04653
Near Acadia Nat'l Park. Rentals, air, sales, service.
PADI instr. Personalized diver charters. Write.

SCUBA INSTRUCTOR NEEDED — 401/421-5675
Camp Samoset, 140 Waterman St., Providence, RI 02906
Maine boys summer camp seeks Cert. Instructor. Beautiful lake &
near ocean. June 18-Aug. 20. Excellent salary & room/board/travel.

TOMMY'S DIVE SHOP — 207/772-5357
273 Congress St., Portland, ME 04101
North East's largest, known coast to coast, disc. of 25-50% off
everyday. Wreck charters, cut this ad out for free airfill.

MARYLAND

BETHANY WATER SPORTS 301/461-DIVE
3220 Corporate Ct., Ste. G, Ellicott City, MD 21043
The complete, professional diving center. Authorized Scubapro dealer. Instruction by certified professionals.

DIVERS DEN, INC. 301/668-6866
8105 Harford Rd., Baltimore, MD 21234
Maryland's oldest professional dive shop.
Large enough to serve you–Small enough to know you.

PARKS DIVING SUPPLY 301/655-8744
8027 Liberty Road, Baltimore, MD 21207
New Program: COMMERCIAL DIVING APPRENTICESHIP $200.00
Send today for free no obligation brochure.

TIDEWATER AQUATICS 301/268-1992
1315 Forest Dr., P.O. Box 3361, Annapolis, MD 21403
Full service dive store & authorized Scubapro dealer.
Ocean City, MD wreck diving charter service.

MASSACHUSETTS

AQUARIUS DIVING CENTER, INC. 617/759-DIVE
3239 Cranberry Hwy., Buzzards Bay, MA 02532
Authorized Scubapro dealer. PADI instruction.
Air, sales, full service, rental, dive travel.

CAPE COD DIVERS, INC. 617/432-9035
815 Main St., Harwich Port, MA 02646 MA 800/DIVING-1
Sales, service, air, professional instruction. Open year-round.
2 USCG approved diveboats and captains.

FALL RIVER MARINE SPORTS 617/673-9667
122 Plymouth Ave., Fall River, MA 02721
Monthly scuba classes. PADI–NAUI.
Professional sales & service. Air station & rentals.

MERRIMACK AQUATICS 617/688-6566
171 Merrimack St., Route 110, Methuen, MA 01844
(Exit 46 off Route 495) Full service store. Authorized Scubapro dealer.

NORTHEAST SCUBA 617/777-DIVE
125 Liberty St., Danvers, MA 01923
Scuba instruction, sales, air station, photo courses. Hydro test, regulator repairs, rentals, boat charters. Int'l Dive Travel.

MICHIGAN

DIVER'S DEN 313/693-9801
604 S. Lapeer Rd., Lake Orion, MI 48035
Sales, service, rentals, air, instruction.
Great Lake Charter Specialists.

SCUBA NORTH, INC. 616/947-2520
13258 W. Bayshore Dr., Traverse City, MI 49684
Year-round instruction, dive trips, local charters,
rentals, repairs & hydro's, all major brands, pkg. prices.

MINNESOTA

THE SUPERIOR DIVER, INC. 218/728-5877 or 218/475-2550
P.O. Box 388, Grand Portage, MN 55605 Ron & Jackie Polomski
Lake Superior shipwreck diving charters in Isle Royale
National Park aboard the 'Superior Diver' & 'Royale Diver'.

MISSOURI

WEST END DIVING CENTERS, INC.
11215 Natural Bridge Rd., Bridgeton, MO 63044 314/731-5003
11004 Manchester Rd., St. Louis, MO 63122 314-822-3005
39 N. Allen, Bonne Terre, MO 63628 314/358-5000

WEST END DIVING'S–BILLION GALLON LAKE RESORT
at Bonne Terre Mine, Bonne Terre, MO 63628 Dive
Fully illuminated underground lake, 1 hour from reservations
St. Louis. 70 ft. visibility, 58° water temp. 314/731-5003

NEW JERSEY

CEDAR GROVE DIVERS SUPPLY 201/857-1748
492 Pompton Ave., Rd. 23, Cedar Grove, NJ 07009
National certified instruction, private or group lessons.
Indoor heated pool, full service dive shop.

DOSIL'S SPORTS CENTER 201/787-0508
261 Rt. 36, E. Keansburg, NJ 07734
Central New Jersey's largest dive store! Dive travel,
rentals, 3,000 psi air, discount prices.

EAST COAST DIVING SERVICE, INC. 201/591-9374
Spring Valley & Texas Rds., Morganville, NJ 07751
NJ's 1st PADI "5" Star training & travel facility. Sales, repairs,
air, rentals, trips, full photo. Just off Rts. 9 & 18.

MARLIN SCUBA SHOP 201/327-6000
506 Rt. 17, Ramsey, NJ 07446
Full service PADI training facility.
Indoor heated pool, N.J. wreck dives, dive vacations.

PRINCETON AQUA SPORTS 609/924-4240
306 Alexander St., Princeton, NJ 08540
PADI training facility. Full service dive, snow
ski & windsurfing facilities. Diving vacations our specialty.

SKI and SCUBA SPORTS, INCORPORATED 201/666-1323
32 Westwood Ave., Westwood, NJ 07675. New Jersey's
Premier Full Service Dive Shop. PADI, NAUI, SSI, CMAS,
YMCA. Unique Celebrity Dive Vacations and Club Discounts.

UNDERWATER DISCOVERY, INC. 201/270-9100
2716 Rt. 37 East, Toms River, NJ 08753
Come and see the professionals!
Owned and operated by Commercial Divers.

UNDERWATER SPORTS, INC. 201/843-3340
Rt. 17 S., Rochelle Park, NJ 07662
New Jersey's oldest and largest pro dive shop est. 1955.
Indoor heated pool, nat'l. certification, travel, all srvcs.

WHITEHOUSE AQUATIC CENTER 201/534-4090
Box 97-C, Hwy. #22 West, Whitehouse Station, NJ 08889
Equipment Sales, Service, Rentals, Air.
Private and Group Lessons, Dive Vacations, Wreck Dives.

NEW YORK

AA AQUA-LUNG CENTER, RICHARDS 212/947-5018
233 W. 42nd St., Times Square, New York, NY 10036
Export agent for all major brands. Dive, surf, swim.
Largest all year-round dive shop. Will not be undersold.

AQUA CRAZY HARVEY 718/743-0054
3179 Emmons Ave., Brooklyn, NY 11235
At Sheepshead Bay. Instant refills. Hydro-VIP.
Major brands, big discounts. Since 1953.

CENTRAL SKINDIVERS DISCOUNT CENTERS Open 7 Days
2608 Merrick Rd., Bellmore, NY (indoor pool) 516/826-8888
160-09 Jamaica Ave., Jamaica, NY (our 35th year) 718/739-5772
Discount equipment & lessons, refills, rentals, repairs.

EAST COAST DIVING, INC. 718/979-6056
1500 Hylan Blvd., Staten Island, NY 10305
PADI 5 star facility, Superior Instruction & Equipment.
Personal Dive Trip Planning & Local Wreck Charters.

ISLAND SCUBA CENTERS, INC. 516/546-2030
74 Woodcleft Ave., Freeport, NY 11520
Sales, air, rentals, repairs, waterfront store, travel.
Instruction, photo equip., rentals, Club Aquarius.

KINGS COUNTY DIVERS CORP. 718/648-4232
2417 Avenue U, Brooklyn, NY 11229
Authorized Scubapro dealer. 718/934-4153
Brooklyn's full service pro shop.

NIAGARA SCUBA SPORTS 716/875-6528
2048 Niagara St. (near I-190 & Hertel), Buffalo, NY 14207
Western New York's full service pro dive shop.
PADI 5 Star facility. Scubapro & other major brands.

PAN AQUA DIVING 212/496-2267
166 W. 75th St., New York, NY 10023
On-site air, equipment, rentals, repair–7 days a week.
NAUI, PADI, YMCA: Basic-Instructor. Local, group trips & travel.

PARAGON SPORTS 212/255-8036
18th Street & Broadway, Manhattan, NY 10003
GSD–Sherwood–U.S. Divers.
Poseidon–Henderson–Zeagle–Ikelite–Heuer.

SEA HUNTER WRECK DIVING 516/759-0650
P.O. Box 252, Sea Cliff, NY 11579
Diving 7 days a week, May through October. For a free
schedule, send a stamped self-addressed envelope.

THE WESTCHESTER DIVE CENTERS, INC. 914/937-2685
62 Westchester Ave., Port Chester, NY 10573
Putnam Dive Center, Mahopac, NY 10541 914/628-1386
Area's most comprehensive year-round scuba school.

ZODIAC WATCH CO.–FACTORY DIVE WATCH REPAIR CENTER
516 5th Ave., Rm. 303, New York, NY 10036 212/869-8999
Rolex & all brands repaired & pressure tested. Heuer authorized
sales and service. Huge discounts. Ron Gordon proprietor.

NORTH CAROLINA

ATLANTIC DIVERS INCORPORATED 919/441-1111
6912 S. Croatan Hwy., P.O. Box 1091, Nags Head, NC 27959
PADI 5 Star Training Facility.
Specialists in Diver Education, Trips, Sales & Service.

EASY STEP CHARTERS/EJW SPORT SHOP 919/247-4725
2204 Arendall St., Morehead City, NC 28557 919/726-2311
Air, Rntls., Repairs, Hydros. Daily walk on charters and grp. rates.
Wreck, deep, boat, Search & Recovery, night specialty courses.

NAGS HEAD PRO DIVE CENTER 919/441-7594
P.O. Box 665, Nags Head, NC 27959
Wreck U-85, schooners, WWII freighters, tankers, aboard Sea Fox.
50' custom boat, PADI instr., sales, svs., rntls., air, 5,000 psi.

OLYMPUS SPORTS INC. 919/726-9432
P.O. Box 486, Morehead City, North Carolina 28557
Dive the clear warm water of NC on area's finest dive boat.
Groups up to 26 or individual walk-ons.

OHIO

LONG LAKE SCUBA 419/331-3483
3160 Long Rd., Lima, OH 45807
Sales, service.
M-F 12:00 - 7:00, Sat. 9-5, Sun. 12-4.

PENNSYLVANIA

DIVER'S WORLD (814) 459-3195
1904 W. 26th St., Erie, PA 16508
Full Service Dive Store, Equip. Sales, Repair, Rentals, Air,
Travel. NAUI P.D.C. of PA, Instr. & Retail Management Training.

DON COOK'S SCUBA EQUIPMENT 717/326-2091
940 Market St., Williamsport, PA 17701
Air, certified instruction, PADI, sales, service.
PADI training facility, pro dive shop. Closed Wednesday.

DUDAS' DIVING DUDS 215/436-0176
101 Bartrams Lane, West Chester, PA 19382
Full service NAUI pro facility. PA's largest selection of wet
& dry suits. Full line of photo equip. Wreck & southern dive trips.

HARRISBURG SCUBA CENTER, INC. 717/561-0517
991-A Peiffers Lane, Harrisburg, PA 17109
5 PADI certified instructors, sales, service, rentals, air, dive
trips. PADI training facility. Weekdays 6 PM-9 PM, Sat. 9-5.

JOLLY ROGER DIVE SHOP, INC. 717/866-5535
Rd. #1, Millardsville Rd., Richland, PA 17087-0250
Full service, Air, Sales, Trips, Rentals.
Certified Inst. diving at shop location.

PITTSBURGH SCUBA 412/621-9900
314 North Craig St., Pittsburgh (Oakland), PA 15213
Equip. sales, rntls., in-house repairs, air trav., instr. Full
Service PADI 5 Star Training Facil., wkdys. 11am-7pm, Sat. 11-5.

SMOKEY'S DIVER'S DEN 717/393-5333
412 N. Duke St., Lancaster, PA 17602
Certified instruction, rentals, sales, service. U/W films 3
videotapes. Programs for schools, clubs & organizations.

RHODE ISLAND

DIVERS WORLD (DIV. OF ALPINE) 401/849-3330
754 Main St., E. Greenwich, RI; 100 Main St., Westerly, RI &
Bellevue Plaza, Newport, RI. Comp. sls. & svs. Disc. prices,
all top brands. Low rates on lessons. RI's most comp. dv. shop.

VIKING DIVE SHOP 401/847-4179
124 E. Main Rd., Newport, RI 02840; Rt. 138
Air, sales, rentals, repairs, hydros, instruction. Wet and
dry suits repaired and altered. Serving divers over 21 yrs.

SOUTH CAROLINA

S.C. Scuba Center/Diving Ventures Unltd. 803/626-3265
1514 Hwy. 501, Myrtle Beach, SC 29577 803/354-7760
PADI Full Service Training Facility/Ocean Express Charters.
SC's best wreck, ledge, river dives. Paramedic/instr. onboard.

TENNESSEE

SKI/SCUBA CENTER, INC. 615/523-9177 or 615/673-8733
2543 Sutherland Ave., Knoxville, TN 37919
PADI 5 Star Facility. Indoor pool on premises, full svs., trips.
Scubapro, US Divers. Retail & rntl. dv. & snow ski. Mon-Sat. 10-6.

TEXAS

AQUAVENTURES-HOUSTON US 1-800/468-6224
1614 Gessner Dr., Houston, TX 77080 TX 713/468-6211
Our 10th year! PADI 5 Star Instructor Development Center. Sport
& Commercial Students Welcome! Friendly Sales, Travel, & Svs.

ARLINGTON SCUBA CENTER, INC. 817/265-6712
2414 W. Park Row Dr., Arlington, TX 76013
PADI 5 Star training, air, sales, rental, repair, trips.
Most complete pro service in North Texas.

SCUBA AIR COMPRESSOR SERVICE, INC. 214/661-8695
14055 Proton Rd., Dallas, TX 75244
New/used high PSI compressors.
Sales, service, overhaul, parts, rentals.

W.W. DIVING COMPANY 713/540-1616
1420 FM 1960 Bypass, East Humble, Texas 77338
Full service dive shop specializing in repair.
NAUI and SSI training facilities. Trips available.

VIRGINIA

SEA VENTURES, INC. 703/425-7676
Pickett Shopping Center, 9444 Main St., Fairfax, VA 22031
Northern VA's complete dive shop. Open daily.
Trips, instruction, sales, rentals, repairs. NAUI, YMCA, & PADI.

"THE" DIVE SHOP 703/698-7220
2841 Rogers Dr., Falls Church, VA 22042
PADI 5 Star INSTRUCTOR DEVELOPMENT CENTER,
full service serving Washington, D.C. metro area.

THE WET ONES, INC. 703/938-1111
163 Glyndon St., Vienna, VA 22180
N. VA's oldest PADI 5 Star facility, instr. all levels,
sales & service, grp. & indiv. trips, photography.

WEST VIRGINIA

HUNTINGTON/CHARLESTON SPORT & COMM. DIVING CENTER
3234 Woodland Dr., Huntington, WV 25705 304/529-6622
916 McCorkle Ave. W., St. Albans, WV 25177 304/72-SCUBA
Full Svc. Facil., local lakes & Ohio River. Come dive with us!

WISCONSIN

3 LITTLE DEVILS SCUBA SHOP 608/356-5866
Rt. 4, Hwy. 123, Baraboo, WI 53913 800/356-9016 & 9017
North entrance to Devil's Lake State Park. PADI 5 Star Instructor
facility, Lake Superior & West Palm Beach charter boat.

CANADA

A.B. DIVERS WORLD 604/732-1344
1523 W. 3rd Avenue, Vancouver, B.C. V6J 1J8
Full service, suits made on premises.
Charters Aboard M.V. Oceaner, Explore, Photo, Wreck.

BEACH GARDENS DIVING RESORT LTD. 604/485-6267
7074 Westminster Ave., Powell River, B.C., Canada V8A 1C5
Dive the Emerald Sea with Jim Willoughby–Diving Director.
Charter boats, group rates, air, U/W guides.

AUSTRALIA

AQUARIUS DIVE TRAVEL AUSTRALIA Ph.: Int. + (03) 25 8863
40-42 Taylor St., Ashburton, Vic 3147, Australia, Tlx: 35411
Agents–Barrier Reef dive boats, islands; other Aussie sites.
Also New Guinea, Solomons, Vanuatu, Fiji. Contact for details.

AUSTRALIA-BARRIER REEF & CORAL SEA Ph.: Int. +61-77-723022
Mike Ball Watersports, 252 Walker St., Townsville, QLD. 4810
Best dive value, incredible Yongala Wreck. Dive training centre. Free
info booklet. Write, phone or Tlx: 47320 Today!

CORAL SEA DIVING SERVICES Ph. Int. +61-70-985254
The Pier (P.O. Box 122), Port Douglas, QLD. 4871 Tlx: AA46118
Best Tropical Diving on the true Outer Great Barrier Reef.
New 58' Custom Dive Boat (26 knots +). Pro facil. exc. dive pkgs.

DIVE AUSTRALIA/PAPUA NEW GUINEA 415/434-3400
Reef Explorer, Auriga Bay, Scheherazade, Water-
Sport, Divemaster, Challenger; Plus Island Resorts!
50 Francisco St., 205A, San Francisco, CA 94133.

GREAT BARRIER REEF AND CORAL SEA +61-70-514055
Going Places, 26 Abbott St., Cairns, Qld. 4870 Tlx: AA48338
Adventure travel specialists to Australia & New Guinea. Over
20 dive boats & island dives from day trips to extended charters.

M.V. BALI-HAI II Ph.: 011 61 070 545545
P.O. Box 692, Cairns, Nth. Qld., Australia 4870
Dive Cod Hole, Ribbon Reef, Lizard Is., 150 mi. of outer reef.
7 & 10 day sched. depart., for indiv., groups & spcl. chtr.

PERTH DIVING ACADEMY (09) 344-7844
281 Wanneroo Rd., Nollamara, Western Australia
Dive trips to Rottnest Is., FAUI Inst. Sales, service
and charters. Open 8:30-6:00 7 days a week.

PRODIVE CAIRNS 07/519915
P.O. Box 5551, Cairns, Aust. 4870
2 70 ft. boats-o/n trips 3x/week to outer reefs.
Barrier Reef Trip Specialists, PADI inst. & specialties.

BAHAMAS

CORAL HARBOR DIVERS 809/326-4171 "In Nassau" 809/327-7862
P.O. Box SS 5635, Nassau, Bahamas
Stage pass to underwater film. Famous movie sites and tongue
of the ocean walls. Daily pick up from all hotels.

FREEPORT/LUCAYA–WATER'S EDGE RESORT & MARINA
Omni Solo Assoc., 53 Water St., S. Norwalk, CT 06854 203/852-9300
Luxury Condos Fully Furnished w/Terraces. Discount on nearby
UNEXSO rates–Studio–$300/wk., 1 BR-$400, 2 BR/2B-$500/wk.

SMUGGLER'S REST DIVE RESORT 800/328-8029 ext. 246
P.O. Box N-8050, Nassau, Bahamas 809/326-1143
Discover southern New Providence diving. Wrecks, reefs, walls. Daily
pick-ups from all hotels, 4 secluded waterside villas.

UNDERWATER ADVENTURES–NASSAU 800/722-DIVE 303/699-9381
Totally self-contained scuba resort. Private 303/888-DIVE
villas, restaurants, etc. 3-7 Days dive/land pkgs. from $270
up. Live-aboard dive boat up to 6 passengers, weekly trips.

UNDERWATER EXPLORERS SOCIETY–UNEXSO (809) 373-1244
P.O. Box F-2433, Freeport, Bahamas Toll Free 1-800-992-DIVE
Famous facil., guided reef trips, instruction; FL (305) 761-7679
group rates, 18' deep tank, chamber, air. Great Packages!

VALENTINE'S DIVE CENTER U.S. 502/897-6481
P.O. Box 1, Harbour Island, Bahamas
AM, PM, & Night Dives. All levels of instruction. Rentals.
U/W Photography & Video, Individual & Group Packages.

WALKER'S CAY HOTEL & MARINA, ABACO 800/327-3714
700 S.W. 34th St., Ft. Lauderdale, FL 33315 FL 800/432-2092
Undiscovered & unspoiled! Virgin reefs, spectacular caves.
Dive shop, boats, rental equipment, certification, great packages!

BARBADOS

DIVE BOAT SAFARI 809/429-8216; 809/427-4350; 800/445-8667
Hilton International Barbados, Needhams Point, Barbados
Diving school PADI & NAUI instr., sales, reef, wreck, night dives
(Right at hotel) Full service operation, USA & CAN Hrs.

PETER HUGHES U/W BARBADOS 800/367-3484; 607/277-3484
Divi Southwinds Beach Hotel & Divi St. James Beach Resort.
Peter Hughes Diving/Divi Hotels, 520 W. State St., Ithaca, NY 14850
Cmpl. Dv. shop/xprt instr./Photo/cust. boats/vac. dv. pkgs. avail.

SCUBA DIVE RENTALS RENTALS 809/426-6936
Barbados Hilton Hotel (Arcade) Amer. Ex., Visa, M/C
Air & rentals, 7 days a week, year-round, Sherwood sales & service.
e.g.: Comp. equip. set, 24 hrs. $25 U.S., additional fill $2 U.S.

THE DIVE SHOP LTD. 809/426-9947
P.O. Box 44-B, St. Michael, Barbados, W.I.
Daily dive trips. Reef, wrecks and artifact dives.
Dive packages with accommodations. NAUI certification.

BELIZE

AMBERGRIS LODGE U.S. Tel: (816) 361-2345
Ambergris Caye, Belize. P.O. Box 123, K.C., MO 64141
Caribbean Sampler: 4 da-3 nt. full Amer. Plan w/airport trans.:
$198 p.p. dbl. occ., group rates, diving and fishing options.

SAINT GEORGE'S LODGE, Box 625, Belize City 011-501-02-44190
"the place to stay in Belize." TX 214/341-5577; 800/631-0032
"Surpasses Cayman" *Undercurrent.* CA 714/955-2774; 800/854-9303
NAUI dream resort certifications. CA 800/262-6670; 800/821-6670

VILLA AVENTURA–A DIVER'S VILLAGE AT CAYE CAULKER
P.O. Box 2664, Evergreen, CO 80439. 303/674-9615
Complete dive services and accommodations
for groups and individuals. 800/538-6802

BERMUDA

SKINDIVING ADVENTURES 809/294-1034
P.O. Box 165, Southampton, Bermuda.
PADI, NAUI, SSI Facilities.
Wreck and reef dives, rentals, sales, instruction, Nikonos.

SOUTH SIDE SCUBA LTD. 809/298-1833
Box HM 1606, Hamilton, Bermuda HMGX 809/293-2915
2 Locations, 2 Custom Dive Boats, 2 Tank Dives,
Night Dives, Experienced Divers/Beginners/Photo.

BONAIRE

BONAIRE–BACHELOR'S BEACH APARTMENTS 202/338-0690
Enjoy beauty above and below water from our private patio
pier. Dive in luxury yet inexpensively. Furnished 1 & 2 BR w/ac.
c/o 4622 Charleston Terr., N.W., Washington, DC 20007.

BONAIRE BEACH BUNGALOWS 717/586-9230
P.O. Box 264, Waverly, PA 18471
Luxurious 2 BR villas, A/C, kit., fully equipped, diving, 3 min.
from downtown, 15 feet from ocean, total privacy, reasonable rates.

BONAIRE CLUB FLAMINGO. New/Mdrn./Best on islnd. 212/734-2421
Eff. apts. sleeps 4, w/maid service. $450/week. Disc. air $419
A Peter Hughes Dive Operation. Further discounts for groups.
Michael Reed, 300 E. 71st St., #14M, New York, NY 10021.

BONAIRE–OCEANFRONT HOUSE FOR RENT 914/271-4649
Beautiful 3 BR on Caribbean, $1200/wk. high season; $800 low.
Dive packages w/Bruce Bowker or Peter Hughes. Also discount air.
Ed Fladung, 7 King St., Croton-on-Hudson, NY 10520

Bruce Bowker's CARIB INN 011-599-7-8819
P.O. Box 68, Bonaire, Netherlands Antilles
Largest selection of sites, reef trips, air, sales, rentals,
full SCUBA instruction, Spacious rooms, ocean view, a/c, pool

PETER HUGHES DIVE BONAIRE 800/367-3484, 607/277-3484
Divi Flamingo Beach Hotel & Casino–Peter Hughes Diving/
Divi Hotels, 520 W. State St., Ithaca, NY 14850. World's premier dive
operation. Instr./2 dive piers/compl. photo/10 dive boats.

SAND DOLLAR DIVE & PHOTO 609/298-3844
c/o 50 Georgetown Rd., Bordentown, NJ 08505
Full service dive & photo with Andre Nahr. U/W video,
beachfront unit, full kitchen, A/C PADI Instruction.

SOROBON BEACH RESORT 011-599-7-8080
P.O. Box 14, Bonaire, Netherlands Antilles Tlx.: 1200 inpo
Cottages on private nude beach, restaurant, windsurfing, sailing.
Studios, one-bedroom units, dive packs from $135.00.

TOUCH THE SEA with DEE SCARR 011-599-7-8529
c/o Touch the Sea, P.O. Box 369, Bonaire, Netherlands Antilles
Personalized dive guiding, marine creatures, photos, much more.
Reservations recommended. (Closed July thru October).

BRAZIL

KARIMAR–DIVE BRASIL (0132) 34-6929
R. Amador Bueno, 73, Santos, Sao Paulo, Brazil Tlx: 1124789
Sales, rentals, service, air, professional instruction
Specialist in weekend dive trips to Sao Paulo area islands.

BRITISH VIRGIN ISLANDS

AQUATIC CENTRES (DIV. OF BASKIN IN THE SUN) 800/345-6296
P.O. Box 108, Tortola, B.V.I. Alan Baskin & Eva Cope 809/494-2858
PADI Trng. Facil., Hotels-Prospect Reef, Treasure Isle & Peter Isld.
Prsnl. svs. designed to spoil you . . . FANTASTIC! (Rhone & Reefs)

BLUE WATER DIVERS 809/494-2847
P.O. Box 437, Road Town, Tortola, B.V.I.
Mike & Keith Royle–PADI Instructors. Dive tours,
intro courses, rentals, air fills, equipment rentals.

UNDERWATER SAFARIS 809/494-3235
P.O. Box 139, Tortola, B.V.I. 800/535-7289
Rhone and reef dives daily, PADI training facility, 809/494-3965
sales, rental, photo center, hotel dive/sail packages.

VIRGIN ISLAND SAILING LTD. 800/648-3393 800/448-8866
P.O. Box 146, Road Town, Tortola, B.V.I. 809/494-2774
Sail & dive pkgs. aboard pvt. motor & sailing yachts. Taking
2-18 guests. Scuba, sail, surf, ski in unspoiled waters.

CARIBBEAN

AQUARIUM DIVE RESORT (811) 6649 or 6378
P.O. Box 1692, San Andres Isla, Colombia Tlx: 40126
Guided U/W tours, air, rentals, instruction.
PADI, CMAS, FEDECAS. Pablo Montoya, Diving Operator.

DIVE AID–UNIQUE FIRST AID KIT 512/357-6632
Be prepared . . . emergency care for Caribbean divers!
Treatment for contact with venomous marine life:
Fire Corals, Jellyfish, Anemones, Urchins, Fireworms, etc.

DIVER'S DEN DOMINICANO 809/529-4459
P.O. Box 687, San Pedro de Macoris, Dominican Republic
PADI Training Facility, daily guided U/W tours, sales, service,
air, photo, rentals, bed & breakfast packages available.

KALIKO Dive Center & Beach Club, Box 58, Port-Au-Prince, Haiti
Discover our Magic Isle below and above water. Dec.-Apr. 4 days.
unlimited boat diving, 2 meals, $324 PP. dbl. occ. After April 15
$269. Tel: 2-6530, US 800/423-6671, IL 312/519-9800 COLLECT.

TOBAGO SCUBA LTD. (809) 639-4360
Jane Boyle, Speyside, Tobago Rep. Trinidad & Tobago
Guides to exciting drifts or leisurely photo dives
from boat. NAUI, CMAS. Exceptional U/W diversity.

CAYMAN ISLANDS

BANANA COTTAGE, CAYMAN BRAC (809) 947-4144
Fully furnished 3 bedroom/2 bath. 5 Minute walk to beach.
Crystal clear waters, great diving, beautiful reefs, scuba
rental available. Reasonable rates.

BRAC REEF BEACH RESORT–CAYMAN BRAC 800/233-8880
Brac Aquatics, Ltd. 800/327-3835
P.O. Box 72279, Tampa, FL 33602
3 tank dives, Little Cayman trips.

CAYMAN DIVING LODGE (800) 262-7686
P.O. Box 11, East End, Grand Cayman, B.W.I.
The perfect alternative to Seven Mile Beach for wilderness
diving walls, wrecks and reefs–Call DIRECT.

CAYMAN ISLANDER HOTEL–GRAND CAYMAN USA 800/922-7555
Bob Soto's Diving Ltd. Local 305/981-7555; FLA 800/423-7555
5821 Hollywood Blvd., Suite 203, Hollywood, FL 33021
Wall, reefs and wreck diving package available.

CAYMAN RENT-A-VILLAS/RIVERS SPORT DIV. LTD. 809/947-4144
P.O. Box 681, Grand Cayman, B.W.I. Dive from the comfort of a
private home, condo, or hotel of your choice. 1 wk. dive pkg. from
US $365 p.p. Small dive grps. aboard Blue Horizon, 34 ft. flattop.

DIVER'S WORLD, LTD. OF CAYMAN 809/949-8128
Seven Mile Shopping Ctr., P.O. Box 917, Grand Cayman, B.W.I.
Diving equipment & supplies, sales, service, repairs & rentals.
PADI certification dives. U/W photo. Supplies & camera rntls.

PETER HUGHES DIVE TIARA 800/367-3484; 607/277-3484
Divi Tiara Beach Hotel, Cayman Brac—Peter Hughes Diving/
Divi Hotels, 520 W. State St., Ithaca, NY 14850. Secluded. Modern
facil./Instr./Cust. dv. boats/personalized svs. All-inclusive pkgs.

PIRATES POINT RESORT, Little Cayman, B.W.I.
New ownership, gourmet chef, new boats and equipment.
All inclusive pkg., unlimited dvg. $145/day p.p./dbl. occ.
U/W videos. Direct booking, 809/948-4210.

SAM McCOY'S—Little Cayman 800/843-2177
Fully A/C rooms, 3 meals daily—$125/day. 412/834-4064
Virgin reefs, wrecks and the finest
shelf diving in the world.

scuba safari . . . $399/wk. pkg.: dvg./accom.; 20% off for small grps.
specializing in private diving to your request & video portraiture.
for sale: THE CAYMAN ADVENTURE 80 min. video. MC/Visa.
p.o. box 2029, grand cayman, bwi or call 809/94-93742.

COSTA RICA

PHANTOM ISLE LODGE 713/489-9156
USA Office: P.O. Box 559, Manvel, TX 77578
Pacific jungle lodge at pirate haunt. Exotic fish & whales.
New 38 ft. boat. Ride horses, fish, visit Corcovado forest.

FAR PACIFIC

BANDO SPORTS—NAUI PRO FACILITY 752-1424
46-27 Nam Chang 3KA, Jung Ku, Seoul, Korea
Basic thru NAUI Instructor train' course.
Name brand eq., sales, air, services, tours, rentals.

DIVE PHILIPPINES, THAILAND, MALAYSIA 415/434-3400
Superb live-aboard dive cruises; 2-20 divers.
U.S. agent for local dive operators.
50 Francisco St., 205A, San Francisco, CA 94133.

MACK'S DIVING OF JAPAN
2-18-34 Nishiki, Naka, Nagoya 460, Japan 052-211-1772
Full service diving system, U/W photo specialist.
Pool, shop, repair . . . now. Big boat in Okinawa!!

SEA TOPIA PRO DIVING CENTER, INC. 09889-2-5567
593 Isa, Ginowan City, Okinawa, Japan
Custom made wet suits, PADI instruction.
Sales, repair, 3,000 psi air station, indoor pool.

FIJI

AQUA-TREK OCEAN SPORTS Adventures 800/227-8747 Outsd CA
P.O. Box 697, Moss Beach, CA 94038 (800) 228-8747 In Calif.
Dive Fiji—Largest selection of Tours available. PADI Facilities.
Travel Agents, Dive Shop and Single Diver Tours. Group Discounts.

BEQA DIVERS FIJI Tel: 361088 or 361241
GPO Box 777, Suva, Fiji. Tlx. FJ2430. Cables DIVEFIJI
Daytrips to many famous sites on new catamaran. Choose
hotel, villas, apartments or dorm. PADI Training Fac.

FIJI DIVING SPECIALISTS 800/247-3483
Groups/individuals, 13 yrs. exp. 206/441-3483
U.S. office for Taveuni, Maravu, Qamea, Namale & More.
170 Denny Way Seattle, WA 98109

WATERSPORTS 808/661-4363
P.O. Box 1656, Lahaina, HI 96767
Fiji/Maui 10 Day Pkg. 12 Dives Including Air From W. Coast,
Hotels, Diving. All The Best Spots. Checkouts & Certifications.

HONDURAS BAY ISL.

ANTHONY'S KEY RESORT—ROATAN BAY ISLANDS U.S.A. Exec. &
Reserv. Office: Nat'l 800/227-DIVE FL 800/343-DIVE or
1385 Coral Way, Ste. 302, Miami, FL 33145 305/858-DIVE
The Western Caribbean's most popular dive resort w/photo fac.

BAY ISLANDS DIVE RESORTS 800/328-0734
Go Diving: 715 Florida Ave. S, Minneapolis, MN 55426
Dive packages to resorts in Roatan and Guanaja.
Barrier reefs, walls, snorkeling, windsurfing, sailing.

BEACH HOUSE RENTAL—ROATAN ISLAND 615/535-2032
660 Oak Shadow Drive, New Johnsonville, TN 37134
Near Anthony's Key Resort. 2 BR dlx., maid, private bch., scuba,
snorkel, 4 persons, $450/wk. Brochure, Rsvns. Video avail.

COCO VIEW RESORT—ROATAN 800/282-8932
P.O. Box 877, San Antonio, FL 34266 904/588-4131
$550/7 nights. Unlimited wall diving guaranteed 365 days
a year! All meals. Live aboard dive boat now available.

ISLAND HOME . . . COME BE OUR GUEST (512) 863-9079 collect.
Darrel & Marla Rea, 114 Oak Ridge Cir., Georgetown, TX 78628
Our cay is a living reef. Sunken ship off dock. Unlimited
dvs./personalized svs. Boats avail. $350/7 nights. All meals.

REEF HOUSE RESORT—ROATAN, HONDURAS
P.O. Box 640399, Kenner, LA 70064 Toll free 800/341-1950 ext. 73
Built on top of reef, intimate accom. up to 30, excellent food.
7 days, meals, unltd. diving, fishing, sailing, boats, guides: $499.

TOP DIVE INN of the SUN/POSADA DEL SOL Guanja, Bay Isl.
P.O. Box 537, Boca Raton, FL 33429 800/642-3483; 305/994-6232
A dive & fish paradise! $549 to $675 7 night pkgs. includes
3 dives daily & 1 nt. dive per week, meals, lodging & more!!

INDIAN OCEAN

JAKARTA DIVE SCHOOL & PRO SHOP 21-583051 x9008
Jakarta Hilton Hotel, P.O. Box 3315, Indonesia 21-587981 x9010
PADI training facility, sales of most major brands. Rentals,
air/svs./repair. Resort & local trips. Tlx: 46673/46698.

MALDIVES DIVERS SERVICE 800/225-2380
c/o Himalayan Travel, Inc., Box 481-SD, Greenwich, CT 06836
Ultimate atoll/reef diving in an Indian Ocean paradise. 15
days from $2395. incl. airfare ex NY. Free brochures & info.

JAMAICA

CLUB CARIBBEAN/SUNDIVERS 809/973-3507; 800/221-4588
P.O. Box 65, Runaway Bay, Jamaica, West Indies
Hotel cottages—Runaway Bay, Jamaica's finest diving, 1,000 ft. bch.
free skiing, windsurfing, sailing, snorkeling, glassbottom boat.

NEGRIL SCUBA CENTRE 809/957-4323
Negril Beach Club, Negril, Jamaica, West Indies 809/957-4425
Beginner lesson, dive pkgs., certification, camera rntls. Beautiful
exciting daily dives with qualified PADI, MDEA Instructor.

SUNDIVERS, JAMAICA LIMITED 809/973-2346
P.O. Box 212, Runaway Bay, Jamaica, West Indies 809/973-3454
Jamaica's only 5 Star PADI int'l training facility.
Sales & svs., camera rentals, videos, resort dive pkgs.

MEDITERRANEAN

CYDIVE CYPRUS 61-34271
1, Poseidon Ave., Kato Paphos, Cyprus Tlx: 5337 CY
PADI 5 Star IDC & BSAC Recog. courses to all levels.
Dive trips. Hire. Sales.

DIVEWISE SERVICES, LTD. Ph: 336441
Dragonara Water Sport Centre, St. Julians, Malta
The friendly dive company. Reliable and personalized. CMAS & PADI.
Full beach club facility, sailing, windsurfing, etc.

MEXICO

AA1 SCUBA CANCUN 988/4-23-36 & 3-10-11
P.O. Box 517, Cancun, Quintana Roo., Mexico 77500
Ex com. & military diver—owner 30+ yrs. dvg. exp. NAUI, CMAS,
PADI Master instr./intl. training facil. Tours, classes, referrals.

AAA AQUA TOURS 52(988)30400
P.O. Box 528, Cancun, Q. Roo, Mexico 77500 31137 or 30227
DIVE MEXICAN CARIBBEAN. Daily trips ISLA MUJERES &
COZUMEL. Instruction, rentals, packages and group rates.

A COZUMEL CONNECTION 1-800/433-0099
P.O. Box 890464, Houston, TX 77289 713/621-1596
Direct link to Cozumel. Reliable. Daily fast boat dive
trips. PADI & SSI cert. course. Full travel services.

AKUMAL DIVE SHOP—4 Instructors PADI/NAUI/SSI certs &
10 specialties. Full service center 13 years on the Mexican
Caribbean. Rentals, photo, trips, snorkeling, fishing.
Dick Blanchard, Postal 1345, Cancun, Q. Roo, Mexico 77500.

AQUA SAFARI Since 1966 (987) 20101; (713) 448-3483
P.O. Box 41, Cozumel, Mex. 77600 (800) 854-9334
Custom 38' dive boats—private dock.
Repair center—PADI International Training Facility.

BAJA diving, FANTASIA DIVERS 800-336-DIVE; TX 713-558-9524
Dive &/or hotel accommodations. Complete new watersport facility
specializing in scuba, snorkel, fishing and sailing. Experienced
PADI & NAUI Instructors. Call for brochures and reservations.

BAJA EXPEDITIONS, INC. 619/297-0506
P.O. Box 3725, San Diego, CA 92103
Join us aboard the DON JOSE and BAJA EXPLORADOR for
exciting Sea of Cortez Diving adventures.

BAJA'S FINEST WATERSPORTS CENTERS/NAUI-PADI-YMCA-CMAS
Cabo Acuadeportes S.A. de C.V. (684) 3-01-22 or 3-01-23
P.O. Box 136, Cabo San Lucas, B.C.S., Mexico
Rentals—Sales—3500 PSI—Instruction—Boat & Beach Dives.

BOOK DIRECT WITH REPS
Lowest cost dive packages. La Ceiba, La Perla, Barracuda, Galapago
Inn & La Plaza hotels. 13 yrs. Cozumel exp. Full-time Cozumel
on-site rep. USA office: Wash. 206/441-3483 or Nat'l 800/247-3483.

CABO DIVERS 706/843-0747
P.O. Box 61, Cabo San Lucas, B.C.S., Mexico
PADI Certified Instructor & Divemaster
Instruction, air, rentals, dive boat.

CASA DEL MAR DE ZIHUATANEJO (743) 4-21-19
Paseo del Pescador #20, Local 6, Zihuatanejo, Gro.
Dive the Pacific in Ixtapa, Zihuatanejo. Full dvg. svs. Cert.
instr., U/W photo., snorkeling, SCUBA lessons, air, rntl., spec. trips.

CEDAM DIVE CENTER at AVENTURAS AKUMAL 800/468-6224
Mexico's only PADI Five Star Training Facility. Daily reef dives,
PADI Certifications, Specialties, Cenotes, and Fun!! Mike & Kathy
Madden/Apartado Postal 1341 Cancun, Q. Roo, Mexico 77500.

CHICO'S DIVE SHOP Telephone 2-18-95, 2-16-63
Paseo Diaz Ordaz 772, Puerto Vallarta, Jalisco, Mexico
Call for reservations for large groups. 50 complete diving
tours, instruction, rentals, sales, resort courses.

CLUB AKUMAL CARIBE HOTEL US 800/351-1622
P.O. Box 1976, El Paso, TX 79950 TX 915/584-3552
PADI certs., uncrowded diving, bilingual dive pkg. w/meals, hotel
incl. from $51.50/day/person, rentals, 60 miles south of Cancun.

CLUB AKUMAL CARIBE—KAPAALUA DIVING CENTER—English,
Spanish, German spoken. Dive pkg. w/meals & hotel incl. from
$52.00/day/person. Equipment rentals, Deep Sea Fishing, Diving
trips to Cozumel, Snorkeling Tours, Kayaks, Windsurfing.

CLUB AKUMAL CARIBE—Paul Bush, founder—CEDAM International
Headquarters since 1958. Best diving in Mexican Caribbean, 5 min.
to 2nd largest Barrier Reef in the world. KAPAALUA DIVING CTR.,
hotel, real estate, condos, time sharing, excellent food.

COZUMEL/NEPTUNO DIVERS DIVE PACKAGE 800/468-6224
Dive Pkgs. from $118 to $299. 4 Days/3 nights and
8 days/7 nights. April 1 through Aug. 31, 1987
1614 Gessner, Houston, TX 77080 (in TX) 713/468-6211.

DISCOVER COZUMEL DIVING (987) 2-02-80
P.O. Box 75, Cozumel, Q. Roo, Mexico 77600
UNLIMITED Scuba Diving Services. Super hotel & dive pkgs.
For info: in USA, contact RICH 1-800-545-8881, Tucson.

DIVE PARADISE—COZUMEL The Best There Is!
The best in personalized service. For a wealth of free
info. & reservations call our USA Office (800) 247-3483,
(206) 441-3483 or write 170 Denny Way, Seattle, WA 98109.

DIVERS PARADISE. CLub Akumal Caribe. 312/438-8420
Furnished bungalow, sleeps six. 20' from beach.
Maid service. Available December 14th thru December 28th, 1986.
14 days $1,400.00. Sale also possible.

GALAPAGO INN/SCUBA COZUMEL (011-52) (987) 20663/20627
P.O. Box 289, Cozumel, Q. Roo, Mexico 77600. U.S. 800/847-5708
Beachfront dive resort, complete facilities with a professional
staff. 15 years experience catering to the serious diver.

HOUSE FOR RENT—COZUMEL 303/442-0258
Rex Walker, 3100 Airport Road, Boulder, CO 80301
3 bedroom houses, one bedroom cottages, luxury furnished
from $200/week, maids, A/C/car, scuba guide.

MARISLA II, LA PAZ, B.C. 619/755-0375
P.O. Box 2248, Del Mar, CA 92014-1548
Luxury diving in the Sea of Cortez (see Dec. '85 Undercurrent).
Unlimited diving aboard 121' ship, 8 dbl. staterooms, xlnt. food.

MAYA DIVERS, in Cozumel, PADI facility 987/21615 (Mexico)
Fast boats—custom dives—airport hosting. Total packages: Air-
selected hotels—diving. U.S. Rep: Fantasia Dive & Travel
504/899-8687 Louisiana and/or 800/348-9101 US.

MULEGE DIVERS
Madero #45, Mulege, Baja, California Sur, Mexico
Guided underwater tours, air, service, equipment
rental and sales. PADI certification classes.

OASIS CONTINENTAL HOTEL & DIVE OPERATION (987) 2-02-80
P.O. Box 268, Cozumel, Q. Roo, Mexico 77600
NEW 80 A/C rooms, complete dive facility, recompression
chamber, restaurant, bar, pool, Group Rates & Pkgs.

TONY TATE'S COZUMEL UNDERWATER VIDEO SERVICE
P.O. Box 30, Cozumel, Q. Roo, Mexico DIVERS! What's the
best souvenir from Cozumel? An U/W Video of your dives. Call for
demos. & appts. U/W video camera rentals available. (987) 2-14-44.

MICRONESIA

BLUE LAGOON DIVE SHOP (Tel. 796) P.O. Box 429, Truk Lagoon,
E. Caroline 96942. Dv. into WWII history of oper. hailstorm w/
Mr. Kimiuo Aisek, world known prof. dvr., witness & founder of
the wrecks. Compl. svs. w/best in "reef" & "wrecks" dvg.

BOOK DIRECT WITH REPS.
Custom packages to Truk, Palau & Ponape. Indiv. & Group packages.
We handle air, hotels, diving, transfers, etc. Phone USA office
at Wash. 206/441-3483 or Nat'l 800/247-3483.

DIVE TRUK and/or PALAU 415/434-3400
Superb live-aboard or hotel-based dive adventures.
U.S. agent designs your special tour.
50 Francisco St, 205A, San Francisco, CA 94133

MICRONESIA AQUATICS OF TRUK LAGOON
P.O. Box 57, Truk Lagoon, E. Caroline Islands 96942
Individual & group tours arranged. Professional guides
for diving & U/W photography. Complete dive services.

MICRONESIAN YACHTS CO., LTD. (670) 6830/6843; Tlx: 783630
P.O. Box 949, Saipan, Marianas 96950. Ansrback: ABOGADOS MN
Dive & sail remote & uninhabited islands of Micronesia incl.
Palau, Northern Marianas on maxi racing schooner 'New World'.

THE VILLAGE 797
P.O. Box 339, Ponape, Micronesia 96941. Telex: 6803
Resort hotel, restaurant, tours, spectacular diving, private thatched bungalows with waterbeds, fabulous food.

TRUK SCUBA DIVE CENTER (TSDC)
c/o Hans Wiliander, P.O. Box 747, Moen, Truk, E.C. Is. 96942
Complete dive center, tours, boats, guides, equipment.

NETHERLANDS ANTILLES

LEROY FRENCHS' OCEAN EXPLORERS PH: 011-599-545252
Simpson Bay, St. Maarten, Dutch West Indies
Complete dive shop. NAUI Instruction. 25 Years Experience. Air fills, rentals, daily dive trips, groups.

MAHO DIVE CENTER 011-599-54-4387
Mullet Bay Resort, Saint Maarten, Neth. Ant., D.W.I.
Good diving, fine dining, casinos, discos, shopping
NAUI/PADI; VISA/MC; dive, relax, enjoy sunny St. Maarten.

PETER HUGHES U/W CURACAO 800/367-3484, 607/277-3484
Peter Hughes Diving/Divi Hotels, 520 W. State St., Ithaca, NY 14850
Located at Curacao Seaquarium. Miles of unspoiled underwater beauty. Peter Hughes staff & inst./custom dive boats/photo lab.

SABA DEEP N.V.–ADVANCED DIVE CENTER 011-599-4-3347
P.O. Box 22, Saba, Netherlands Antilles, Dutch West Indies
Saba's Original Dive Shop. PADI/NAUI Instructors
"You've dived the rest, now dive the best."

SEA SABA DIVE CENTER 1-800-541-2255 tone 774-9000
Windwardside, Saba, Netherlands Antilles 011-599-4-2246
Full svs. Diving most beautiful reefs in Caribbean. Deluxe accom. on hillside 1,200 ft. above sea level. Tiny, quiet paradise.

PAPUA NEW GUINEA

JAIS ABEN RESORT PTY. LTD. 82-3311
P.O. Box 105, Madang, Papua New Guinea Tlx: NE82716
Dive coral reefs & WWII wrecks within 15 min. of resort. Complete packages, 3 boat dives daily, NAUI facility.

RABUAL DIVE & TOUR SERVICES Telex: KAIVUNA 92982
P.O. Box 1128, Rabual E.N.B., Papua New Guinea
Combine the superb setting & reefs of Walindi Resort with the exciting WW II Wrecks of Rabaul.

TROPICAL DIVING ADVENTURES PTY. LTD. 257429
P.O. Box 1644, Boroko, Papua New Guinea Tlx: NE22380
66' charter dive vessel, 36' dive launch, NAUI Pro Facility.
Bob & Dinah Halstead, Papua New Guinea's sport diving specialists.

PUERTO RICO

CARIBBEAN SCHOOL OF AQUATICS, INC. Since 1963
Captain Greg Korwek, NAUI Instr. #166 809/728-6606
La Concha Hotel, Box 4195, San Juan, PR 00905 809/723-4740
Best boat diving, scuba instruction, sailing charters.

CARIBE AQUATIC ADVENTURES 809/721-0303 ext. 3447
Caribe Hilton Int'l, P.O. Box 1872, San Juan, Puerto Rico 00903
Best reef dvg. in San Juan. NAUI & PADI instr., sales. Enclosed reef & cave dive areas (right at hotel). 4 dives daily.

CORAL HEAD DIVERS at PALMAS DEL MAR 809/850-7208
Box CUHF, Humacao, P.R. 00661. Complete Scuba facility including two custom built motor vessels. Exquisite Diving plus a great variety of other activities at a unique resort.

PARGUERA DIVERS TRNG. CTR. 809/899-4171
Box 514, Lajas, P.R. 00667
Discover the magic of a virgin world at a secluded resort. Great Accommodations–Dive Packages–Pro Shop.

RED SEA

DIVE SUDAN, SHARM-EL-SHEIKH 415/434-3400
Superb live-aboard dive cruises; 2-18 divers
U.S. agent for local dive operators.
50 Francisco St., 205A, San Francisco, CA 94133.

LADY JENNY V 404/922-1155 USA; UK: 0789-763645
Red Sea Adventures. In 5th year of continuous operations from Sharm-el-Sheikh. 32 departures/year w/AC comfort. Unlimited diving, biggest selection of dive sites offered, British crew.

LUCKY DIVERS–The Best Way Into The RED SEA Since Moses!
Moriah Hotel, Eilat, 88000, Israel. Tel. 059-75749. Tlx: 7761 TRET IL.
Dive Red Sea to Ras Muhammad on lux. yacht 'SUELLYN', 78' Hotel pkg./2 Dvs. $44/day. PADI, CMAS, NAUI Dive courses avail.

LUCKY DIVERS–The Best Way Into The RED SEA Since Moses!
Ultimate Dive Adventure! Boat safari to Ras Muhammad.
Dive/Hotel Pkg. avail. Daily Guided Dives, Modern Dive Shop.
CANADA: Call Mr. Sapina–Quebec 514-461-0110. Tlx: 055 61607.

RED SEA DIVERS, SHARM DIVING, AQUAMARIN, Sharm-el-Sheikh 768385. Dahab Diving Tel. Nuweiba Diving 768832. Tlx: 94002 - OHTEG UN. HO. 32 Sabry Abu Alam St., Cairo 770200-770301
Diving, eg. lab, windsurf., glass bottom boat, safari, hotels.

RED SEA SPORTS CLUB Tel.: 059-79685/76569
King Solomon's Palace & Caravan Hotel
Equip., sales, courses, introductory dives, boats, U/W photo, water-ski, windsurfing, seafari & more.

SOLOMON ISLANDS

DIVE SOLOMONS (Anuha/Uepi) & VANUATU 415/434-3400
Virgin reefs/fantastic wrecks/sheer dropoffs from resorts.
U.S. agent for local dive operators.
50 Francisco St., 205A, San Francisco, CA 94133.

ISLAND DIVE SERVICES, LTD. 22103
P.O. Box 414, Honiara, Solomon Islands
Dive the WWII Wrecks of Guadalcanal & The Walls & Reefs of the South Pacific. Full Facil. Tlx: HQ66315.

SOUTH PACIFIC

CORALHEAD DIVING Hdqtrs.–Box 211, Nuku'alofa, Tonga-Ph. 22176.
Full Dive Shops at Royal Island Resort. 27' 110hp 'African Queen', 17' 55hp 'White Knuckles' to serve you. PADI Training Facil. USD Auth. Dealer, Full Rntls. & Clean Air.

DIVE FIJI and TAHITI 415/434-3400
Taveuni, Qamea, Ste Reta, Manihi, Rangiroa, Kaveka.
U.S. agent for custom designed vacations.
50 Francisco St., 205A, San Francisco, CA 94133.

OCEAN VOYAGES 415/332-4681
1709 Bridgeway, Sausalito, CA 94965 Telex: 470561 SAIL UI
Dive fabulous Cocos Island, 12 days $1,595 per person.
Also Galapagos/Tahiti/BVI/Philippines for groups 4-10.

SAM'S DIVE SHOP, Box 516, Pago Pago, American Samoa 96799
Dive a remote, unspoiled Pacific Island, 684-699-9417, 699-1317
$490/wk complete, 2 dives/day, all food, lodging, kids-free.
Non-divers $330/wk, excellent free snorkeling, beautiful beaches.

TONGA–Fantastic, unique & pure virgin diving. Mammoth cave systems, dropoffs, 200+ feet average visibility.
Air/land/dive packages. Tropical Adventures, 170
Denny Way, Seattle, WA 98109. Nat'l (800) 247-3483.

THAILAND

PHUKET DIVERS CO., LTD. TLX. 65543 PKDIVER TH
7/70 Poonpon Rd., Phuket 83000 Thailand Tel. (076)215738
Snorkeling, diving equipment rentals, boat charters, sailing trips with 73' DIANA to Pipi & Similan Isl.

SEAFARI–largest dive cntr. in S.E.A's major fun resort 038/419060
Pattaya Beach Resort, Thailand Cable: ROGADEN Tlx: 85909 TH
PADI 5 Star Instr Devl Center/All level certs/11 specs, 1st aid/CPR
Tropical/wreck dives. Sls., svs., rentals, pure air, windsurf, accom.

SUBMARINE DIVERS Intern. Diving Center, Kata-Karon Beach
P.O. Box 101, 83000 Phuket/Thailand, Tlx: 69513 SHPSERV
Diving Tours & Expeditions 1-7 days, 2 Dive-Boats (65 ft.)
PADI Training Facility, write now for free color brochure.

TURKS & CAICOS

THIRD TURTLE INN 800/323-7600
Providenciales, Turks & Caicos Islands 312/655-5678
A small resort in a class by itself. PADI dive shop. 3 dive boats, group rates avail. gourmet dining, luxurious accom.

SEA DANCER, PETER HUGHES DIVING 800/367-3484, 607/277-3484
Peter Hughes Diving/Divi Hotels, 520 W. State St., Ithaca, NY 14850
Live-aboard 110' spacious floating dive resort. Unlimited diving/on-board compressors & photo lab. 7 night pkgs. out of Grand Turk.

U.S. VIRGIN ISLANDS

AQUA ACTION 809/775-3285
P.O. Box 12138, Charlotte Amalie, St. Thomas, USVI 00801
Scuba, Instruction, windsurfing. Custom dive & snorkeling tours with personality! Boutique, sales and service.

CARIBBEAN SEA ADVENTURES 809/773-3011
P.O. Box 3015, Christiansted, St. Croix, USVI 00820
4 Dive boats to walls, drop offs, Buck Island Natl. Park.
Individuals or groups, package rates available.

CHRIS SAWYER DIVING CENTER 809/775-7320
41-6-1 Estate Frydenhoj, St. Thomas, USVI 00801
Full svs. NAUI pro facility, personal svs., quality guaranteed, cruise ship pick-up at dock. Send for VI diving info. packet.

CINNAMON BAY CAMPGROUND & WATERSPORTS CENTER
PADI Certified Instruction, Shipwrecks, Reef Dives.
5 Days accommodation and 5 dives $400.00 per person, Includes all equipment. 809/776-6458

CONDOS FOR RENT 800/874-3009
St. Thomas, St. Croix, Cayman, Hawaii, Keys.
Over 800 privately owned units, 1-3 bedrooms.
Moderate to luxury.

CRUZ BAY WATERSPORTS CO., INC. 809/776-6234
P.O. Box 252, St. John, U.S.V.I. 00830
PADI Pro Facility, full service store, instruction, dive pkgs.
Daily reef and wreck dives, wreck of "Rhone" every Thursday.

DIVE EXPERIENCE, INC. 809/773-3307
P.O. Box 4254, Christiansted, St. Croix, USVI 00820
40' Dive Boat, wall dives! Night dives. 24 hour number. Hotel Packages, Introductory dives–PADI–NAUI–SSI.

JOE VOGEL DIVING CO.–EX–UDT Center: 809/775-7610
P.O. Box 7322, St. Thomas, USVI 00801
Oldest cert'd diving school in USVI. Joe conducts all scuba instr., day, night, wreck dives & snorkel tours. U/W photo. Pers. service.

REEF DIVERS 1-800-524-2096
P.O. Box 9531, St. Thomas, Virgin Islands 00801
40' Glass Bottom Dive Boat. Scuba instr., guided tours, snorkeling, sailing, other island tours, car rentals.

SAIL & DIVE THE U.S. & BRITISH ISLES ON THE EVENTIDE
A personalized cruise with Capt./Divemaster Bob Even.
Compressor/Tanks/Dive Gear incl. 7 days: $800 per person based on 4 persons. Call free: VI Scuba/Sail 800/524-2005.

SEA SHADOWS SCUBA 809/778-3850
P.O. Box 505, Cane Bay, St. Croix, USVI 00820 809/773-1441
Full service center @ Cane Bay. Air, rentals, sales, instruction & tours of spectacular drop-off walls of the north shore.

ST. JOHN WATERSPORTS (THE DIVE SHOP) 809/776-6256
Box 70, St. John, U.S.V.I. 00830 809/776-6042
Scuba, snorkel, day sail, rentals, air, wreck dives and PADI Certification.

V.I. DIVERS LTD. 809/773-6045
Pan Am Pavilion, Christiansted, St. Croix, USVI 00820
Full service dive shop, NAUI & PADI, hotel packages.
40' dive boat. Diving St. Croix since 1971.

V.I. DIVING SCHOOLS/SUPPLIES, INC. 809/774-8687
P.O. Box 9707, St. Thomas, USVI 00801-3400 809/774-7368
Sales, tours, classes, rentals, repairs, air.
SSI, NAUI, PADI, YMCA, IDEA: skin diver thru instructor.

WINDWARD ISLANDS

ANSE CHASTANET SCUBA ST. LUCIA 800/328-5285
P.O. Box 216, Soufriere, St. Lucia, West Indies Telex: 0398/6370
Dive packages, accom., bars, restaurant, snorkel, resort courses, air, rentals. Complimentary windsrf., sail, tennis. 809/454-7354/5

DIVE ST. VINCENT 809/458-4714
P.O. Box 864, St. Vincent, West Indies 809/457-4409
Diving with a personal touch. Full service shop, NAUI, PADI, NASE, CMAS. Non-cattle boat diving. Dive packages available.

HOW DO YOU REACH 937,000 TRAVELING DIVE & SCUBA ENTHUSIASTS

RUN A 4-LINE LISTING IN OUR "DIVER'S DIRECTORY" SECTION.

CALL TOLL-FREE 800/231-4053
(U.S. only/outside California)

VISA and MASTERCARD ACCEPTED!

FOR MORE INFORMATION CALL 213/854-2700.

DON'T LET YOUR COMPETITORS STEAL YOUR CUSTOMERS AND PROFITS! START ADVERTISING YOUR STORE OR SCHOOL TODAY!

VISA MasterCard

I Learned About Diving From That

Boat Entries: Snorkel Vs. Regulator

BY KEN RICHARDS

My certification card was only three years old, but I was comfortable in the water. I did my diving with a major Southern California dive club and I followed the rules of diving as I had been taught. We were diving Santa Cruz Island. Henry, my buddy, was an old friend, a slow, steady and safe diver. If he had a fault, it was the interminable time it took him to get into the water.

On this memorable dive, the boat was anchored close to the island in luxurious kelp. The weather was clear and unusually warm, with only a slight breeze. From the deck, the kelp seemed to be fairly straight up, indicating little or no current. Henry seemed ready, so I jumped in.

My boat entry technique was, as usual, executed in the manner I had been taught—snorkel in mouth, regulator hose over the right shoulder. My right hand held the snorkel mouthpiece and secured my mask. The regulator's second stage was caught in the bend of my right elbow. My left hand held a polespear, straight up, so the point wouldn't stab me.

I took my giant step, submerged and bubbled back to the surface. I cleared the entry spot and turned around to watch Henry. There he was, at the gate, fussing with some straps and being tended to by a helpful crew member. Oh well, that's Henry. I turned around to face the island and plot our course.

Suddenly, I was thumped on the back of the head and found myself under the boat, surrounded by kelp. That slight breeze had swung our broad-beamed boat right over the top of me. I took a couple of fin strokes to the side of the boat, but didn't get anywhere. Assuming the boat was still moving, I reversed direction and took a few more kicks. Still no movement in relation to the boat. Obviously, the kelp was holding me back.

Time of submergence: Ten seconds. Mental state: Calm (what, me worry?).

As long as I was submerged, the obvious next step was to insert my regulator into my mouth. I reached over my right shoulder, felt the hose in my gloved hand and slid my hand down the hose to the mouthpiece. Instead of a mouthpiece, I found a kelp frond!

Time of submergence: Fifteen seconds. Mental state: Irritated.

I reached for the hose again and grabbed more kelp. It felt just like a regulator hose.

Time of submergence: About 20 seconds. If I had taken a full breath before submerging, I could have lasted 45 to 60 seconds, but I had not been prepared to submerge. Mental state: Concerned.

More quickly now, I started grabbing anything that felt like hose—more kelp! I realized I was probably grabbing the same strands over and over again. Use your head, dummy! I dropped my spear, started grabbing with my right hand and transferring the kelp to my left.

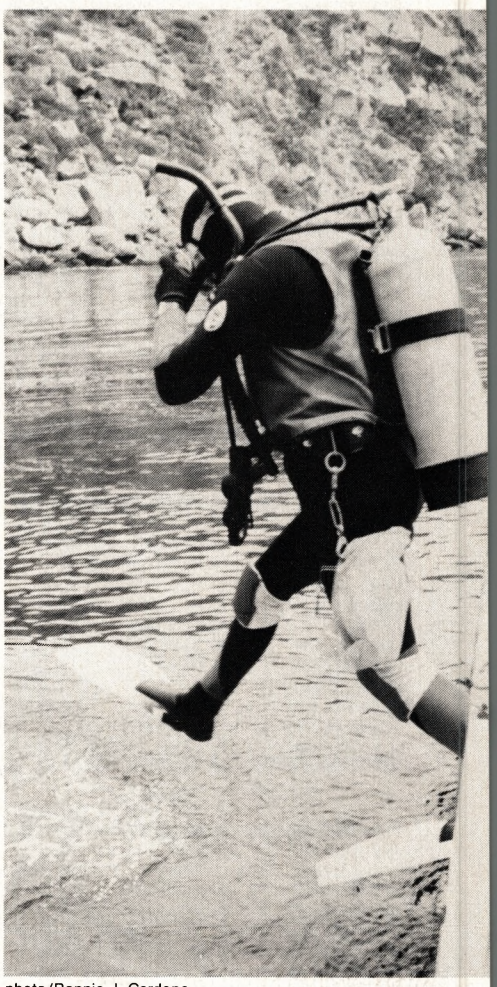
Time of submergence: Twenty-five seconds. Mental state: Confused. My peripheral vision was narrowing. I didn't have any breath left!

Finally, a piece of kelp became a hose and I found the mouthpiece. I had enough sense remaining to hit the purge as I stuffed it in my mouth. Needless to say, that first gasp was the sweetest breath of my life. With air in my mouth and lungs, it was easy to part the kelp and swim the few feet back to the dive ramp.

I sat on the ramp for a few seconds, breathing sweet fresh air, before it hit me that I had been close to the end! All of a sudden I was gasping for breath and in a state of near panic. I must have sat there for five minutes before I calmed down enough to realize I should submerge now or lose my nerve. There was also that polespear on the bottom.

I put the regulator back in my mouth, then slipped off the ramp just in time to see Henry jump into the water. I joined him, led him down to my spear and completed an uneventful, if short, dive.

Since that experience, I have purchased a neckstrap for my regulator. In spite of warnings I received in scuba class, I found I am in no danger of choking or breaking my neck. A solid yank on the strap results in immediate release of the snap. I have also adopted my own Rule Number One of survival. I *always* jump in with my regulator in my mouth and I faithfully save some air for my return to the boat. When I get close, I pop the regulator in my mouth, even if there's no kelp in sight. Maybe I do lose two minutes of bottom time per dive, but it's worth it!



photo/Bonnie J. Cardone

I have told my tale many times and have been surprised to find many of my friends have had similar experiences. Many of the instructors I know teach entry with the regulator in the mouth. I wouldn't do it any other way. I faithfully wear my neckstrap although I have never needed it. I feel that I'm a better diver for my experience, but I would rather have read it than done it!

SKIN DIVER VOL. 36 NO. 4
(ISSN 0037-6345) Published monthly by Petersen Publishing Company, 8490 Sunset Blvd., Los Angeles, California 90069. Second Class postage paid at Los Angeles, CA and at additional mailing offices. Single copy $2.95. Subscription inquiries phone (213) 854-2470 Subscription rates: U.S. Possessions one year $19.94. All other countries one year $29.94. CONTRIBUTIONS: Should be mailed to 8490 Sunset Blvd., Los Angeles, California 90069. They must be accompanied by return postage and we assume no responsibility for loss or damage thereto. Any material accepted is subject to such revision as is necessary in our sole discretion to meet the requirements of this publication. Upon acceptance, payment will be made at our current rate, which covers the author's and/or contributor's right, title and interest in and to the material mailed including but not limited to photos, drawings, charts, and designs, which shall be considered as text. The act of mailing a manuscript and/or material shall constitute an express warranty by the contributor that the material is original and in no way an infringement upon the rights of others. CHANGE OF ADDRESS: Six weeks notice is required to change a subscriber's address. Please give both old and new address and label. Mail to P.O. Box 3295, Los Angeles, CA 90078. POSTMASTER: Send address change to Skin Diver Magazine, P.O. Box 3295, Los Angeles, California 90078.

BIRTH OF THE DIVING ROBOT "AQUALAND"

Aqualand — the World's First Multifunctional Diver's Watch with an Electronic Depth Sensor.



CITIZEN
THE SPORTING LIFE

Comprehensive dive data at a glance!

- *Depth Meter — digitally displays the depth in units of 0.1 meter down to 80 meters*
- *Depth Alarm — rings when exceeding preset depth*
- *Dive Time Alarm — sounds when preset time is reached*
- *Maximum Depth Memory — automatically records maximum depth*
- *Dive Time Memory — automatically records dive duration*
- *Dive Time Reading — indicates elapsed diving time*

CITIZEN

CITIZEN IS A REGISTERED TRADEMARK OF CITIZEN WATCH CO., JAPAN



Our latest release.

Click. It's on.
Click. It's off.

Presenting the Liberator,™ Tabata's hot new quick-release BCJ. Just a squeeze on the sides of the Coast Guard approved buckles is all it takes to detach the Liberator and remove it. The only problem is that the Liberator's padded backpack, padded waistband, adjustable straps and convenient Velcro™ closures make it so comfortable, you may not want to take it off. And like all rugged Tabata BCJ's, the Liberator has new features like an over pressure exhaust valve, auto inflator, and detachable CO_2 detonator.

The Liberator. You'll get off on it.

Tabata

2380 MIRA MAR AVENUE, LONG BEACH BUSINESS CENTER, LONG BEACH, CA 90815. FAX (213) 498-1390. TABATA USA, INC., A SUBSIDIARY OF TABATA CO., LTD., JAPAN.